

INTRODUCTION

“Over-population in Jaunpur” is one of a series of rural surveys undertaken by post-graduate students of the Lucknow University with a view to ascertain the effects of population pressure on rural economy and social life and welfare in the eastern districts of the United Provinces. It sees the light of day on account of the interest taken in these investigations by Mr G. F. Clarke, Director of Agriculture

Jaunpur's rural density is now the highest in the province. A rough comparison of the agricultural statistics of Jaunpur and Meerut will be interesting—

	Jaunpur	Meerut.
1. Density (1931)	797	702
2. Average holding	8.5 acres	7.8 acres.
3. Percentage of net cultivated to cultivable area	76.0	82.4
4. Percentage of area cropped more than once to total cultivated area	25.6	83.4
5. Percentage of irrigated to irrigable area .	71.2	86.8
6. Percentage of irrigated area cropped more than once to rural area cropped more than once	2.4	1.3

The eastern districts of the United Provinces were, till the sixteenth century, covered with large belts of forests. The area cultivated was small and population sparsely distributed. We read in the *Akbarnama* that on the march of an army along the southern bank of the Gogra in what is near the Azamgarh district, forests were traversed and various wild beasts, both land and aquatic, showed themselves, which is extremely inapplicable at present. Finch was told that the journey from Jaunpur to Allahabad was thirty *kos*, “all of which are through a continual forest.” Moreland who institutes an interesting comparison between Abul Fazl's figures of cropped area and the present day district statistics estimates the cultivated area

of Jaunpur district as 360 000 bighas at the time of Akbar as compared with about 1 515,000 bighas at the present day. Thus cultivation has increased at least four fold no doubt on account of the stimulus of population growth.

Population has been expanding by leaps and bounds in Jaunpur district during the last century. Between 1841 and 1921 the net cultivated area in the district increased by 10·7 per cent while the population expanded by 44 per cent. That the limit has been reached in the direction of extensive farming is indicated by the fact that the percentage of the cultivated area to estimated cultivable area has now reached the phenomenal figure of 84 per cent. Nor are the prospects of increase of double cropped area hopeful. Between 1896 and 1916 the double cropped area, no doubt increased from 142 192 acres to 193,808 acres, but since that year the figure has not shown any expansion, the areas being 167,096 and 182,130 acres in 1927 and 1929 respectively. As it is the area is one of the largest in the United Provinces forming about a quarter of the total cropped area of the district and is limited by the nature of the soil and agricultural water supply.

But intensive cultivation in the sense of growth of heavy yielding crops or of better crops of the same kind has certainly not exhausted its possibilities. Indeed, the district is showing progress in both these directions. Rice for instance has shown a steady and continuous expansion. From 113 000 acres in 1841 the area increased to 121 366 acres in 1886. In 1908 the area was 167 800 and in 1929 it was 167 087 acres. The extension of the rice area is due partly to the reclamation of the fringes of swamps and usar land partly to the spread of double cropping in fields where a rotation of rice and peas is now observed and partly to the substitution of rice for other staples. The pea area was 25 000 acres in 1841 33 000 in 1886 and 81 373 acres in 1908. More recent increases have not been recorded. Similarly maize which is another valuable heavy yielding crop has continuously expanded. It stood at only 4 175 acres in 1841 and the latest figure is 97 305 acres. On the other

hand, intensive cultivation has led to the decline of acreages under certain crops. The most important of these is sugarcane. The sugarcane area stood at 81,436 acres in 1841, which came down to 49,292 acres in 1906. In 1929 the area further declined to 40,675 acres. One of the main causes of the unpopularity of sugarcane is that the peasant prefers to grow maize or rice and then to sow a *rabi* crop on the same field, thus obviating the necessity of long fallow and careful preparation of the soil demanded by the crop. Similarly, barley has declined though not to the extent of the diminution of sugarcane. In 1841 the barley area stood at 213,000 acres. In 1929, the area was only 191,491 acres.

The above changes in cropping are both interesting and significant as indicating the agricultural adjustment of a district which has now more mouths to feed than the existing system and standard of cultivation can afford. The growth of melons, radishes, potatoes and other vegetables, which fetch better prices, has also been rapid in Jaunpur. Some of the under-sized holdings near the towns grow little of the staple foods and make large profits out of fruits, vegetables and flowers. Fruit-culture and market-gardening are, indeed, two important directions in which the solution of the problems of the uneconomic holdings will be found for the eastern district of the province. An acre of vegetables or fruits in Benares, Basti or Jaunpur is worth often ten to fifteen times the value of an acre of wheat, and the holding, which is uneconomic when it grows the ordinary staples, will be ample when it grows garden crops. Unfortunately such cultivation is chiefly in the hands of the specialised castes Koiri, Kacchi, Murao etc.) and the masses of agriculturists have not as yet taken to vegetable and fruit-growing. It is also futile to grow garden crops, fruits or flowers systematically except in the neighbourhood of small towns unless rapid and easy means of transport are developed.

Jaunpur is comprised within a region which shows the world's most marvellous system of irrigation from wells. The district is literally honeycombed with wells, and in a year of

scarcity more of these are built to cope with the demand of agricultural water-supply. Roughly speaking, there is now one well for every 12 acres of cultivated area, 20 acres of total area and 25 acres of irrigated area. Each year of scarcity has left a legacy of defences behind, and thus Jaunpur has come to be insured against distress. The potential resistance is indicated by the abnormally high figures of irrigated area reached in the years of scarcity.

Percentages of irrigated to estimated irrigable area—

Year	Percentages.
1907-08	84.7
1911-12	86.7
1916-17	87.8
1918-19	78.6
1924-25	1.2

In 1929-30 which was also a year of short rainfall almost throughout the province, the total irrigated area in Jaunpur was 351,298 acres of which the area irrigated by well was as much as 324,464 acres. The whole agricultural future of Jaunpur is intimately connected with the fullest possible use of wells. Double cropping in this district depends mostly upon wells while the *rabi* crop is protected effectively by the expansion of the well irrigated area whenever the rainfall is irregular or deficient. Thus the economy of well irrigation and of water generally speaking is the paramount need of the eastern districts. The water demands of the various crops require closer investigation and the possibilities of water saving by a combination of fodder production and improved methods of agriculture should be explored. Secondly the practice of constructing field or ravine embankments should be extended to save as much as possible the rain water or well water. Thirdly a great saving in water might be effected by piping or lining the water channels. At present there is great loss of water due to evaporation and percolation in earthen channels. In many villages channels lined with roof tiles may occasionally be seen especially when the water is to be conducted to long distances and along more porous soils. Lastly a careful vigilance is

be maintained with a view to ascertain whether there is a fall in the sub-soil water-level in any of the intensively irrigated areas

The Census of 1931 has given the provisional figure of 797 as the density of Jaunpur district. Before this, Jaunpur has shown a decline in its density of population since 1891 as the following table will indicate —

Year	Density.
1891	780
1891	816
1901	776
1911	746
1921	749
1931	797

Thus in Jaunpur density has declined, in spite of a steady extension in the total area cropped (including area cropped more than once) and an extension of well-irrigation which in the last famine year 1918-19 reached the high figure 86 per cent. Due to the enormous pressure of population on the land, man's efforts are here being retarded, and population is receiving a set-back. It is the old Law of Diminishing Returns though modern economic thought has moved far away from Malthus and his teachings. In the study of population attention is now concentrated upon the study of the equilibrium and optimum numbers and the conditions of their maintenance in definite areas or regions. While geographers like Auroousseau study the factors of climate, soil or water-supply as determining the population capacity and "expansion ratio" of different regions, biologists like Elton investigate the mechanisms by which an optimum density is maintained for different species of animals in a given ecological area.

The population problem of a region thus resolves itself into an investigation of its population capacity in relation to the full utilization of its agricultural and industrial resources, its accumulated agricultural capital and man-power, and of the trend of its birth and death-rates in relation to density as indicating its optimum population. The excessive pressure of

population on the soil and its economic and biologic effects are now being experienced in the district, which on account of the natural limits of soil and water resources under the existing technique of the people, cannot produce enough food for its multiplying numbers. The survey of a particular village has shown the average holding as 3.3 acres. For the whole district the average size of a tenant's holding is 3.5 acres. For the Gorakhpur division the Banking Inquiry Committee's estimate of the minimum economic holding is 3.8 acres. The average holding in Jaunpur district as a whole is probably actually below the economic unit and the lowest in the United Provinces. More elaborate inquiries are however necessary to find out the proportion of tenants and proprietors whose holdings are definitely uneconomic and whose holdings are at or slightly above the economic unit. No doubt more than 50 per cent of the cultivators possess under sized holdings. Such holdings as they are are made up of small plots scattered all over the village. The evil of fragmentation will be evident from one of the instances cited in the survey. A holding of 0.13 acre is divided into two parcels 0.60 and 0.70 acres respectively the former being again divided into three fragments 0.2, 0.2 and 0.3 acres respectively. The waste of labour in carrying manure, implements and water to such tiny plots situated at a distance from one another can easily be imagined. It is on account of the excessive fractionalization of fields that intensive farming has been seriously handicapped in the eastern districts of this province.

No peasant can own and work an uneconomic holding except at a loss. Besides there is chronic under employment on uneconomic holdings. The peasant in the eastern districts of this province, cultivating tiny holdings hardly works for more than six months in the year. In the off season the cultivator's family can barely find employment in the field for one or two hours a day. Low agricultural income and agricultural idleness thus often go together and as a result either the non-cultivating money lending classes or the landless

labourers or both grow at the expense of small proprietors and tenants. Such a situation, even if true for small areas is full of social hazards.

Agriculture of a fairly intensive type now supports nearly 76 per cent of the total population of Jaunpur while industry and commerce only 10 and 5 per cent respectively. For the Meerut division, the percentage of the total population engaged in agriculture is 42, industry and trade representing 21 and 6 per cent respectively. The people of Jaunpur have shown far less initiative to strike out new lines than their brethren in Meerut, their smaller average income also is a bar against their engaging themselves in trade and small-scale occupations so commonly met with in the western districts. Cottage handicrafts and agricultural industries or other small scale occupations made available to the Jaunpuris either as substitutes for agriculture, or as supplementary to it, may relieve the pressure of population. Migration is also widely resorted to as the easiest and quickest mode of mitigating population pressure. Normally some 80,000 Jaunpuris emigrate in a decade to Bengal, Assam or Bihar and even to Bombay, Burma and far-off Guiana or Fiji, resulting in the additional advantage derived by the district from the income which pours into it from the emigrants. When the *kharif* failed in the district in 1929 a single small village, we read in the present survey, sent to Calcutta and other distant places about 20 persons. In 1928-29 the total sum paid by money orders in Jaunpur district was 53½ lakhs, which gives some clue of the assistance rendered by emigrants to families left at home. The eastern districts generally show high returns of money-orders paid, Benares (80¼ lakhs), Gorakhpur (60 lakhs) and Azamgarh (54½ lakh), yet the volume of such emigration is small representing only about 6 per cent of the population and can hardly alleviate the enormous pressure of population on the soil. The excessive sub-division of land, lack of adequate work for the family in toy holdings, a low agricultural outturn, an enforced

idleness due to lack of adequate subsidiary employment conservatism and immobility have all made it impossible for the peasant to maintain the existing low standard of living

We are at present blessed with anything but the optimum population. The equilibrium density has also been over stepped in some districts of the United Provinces, with the result that we find a steady increase of death rate and even a decrease of birth rate. The distinguished biologist Prof Pearl found out that with fruit flies and fowls an increase of density is accompanied by reduction of birth rate even though food is adequately supplied. How far certain districts in the United Provinces are showing the fruit fly type of check, viz, reduction of birth rate with density deserves careful inquiry. Jaunpur appears to show a distinct tendency towards diminution of birth rate since its saturation density was over stepped in 1891. Between 1901-1909 the average birth rate was 36 per 1 000 it was 40.99 between 1910-1917 this has come down to 28.01 between 1919-1927. There is also another way by which the equilibrium density is restored, viz steady increase of mortality. No doubt Jaunpur along with most districts now shows a close correspondence of birth and death rates with variation of food supply as measured by cropped area. In both human as well as animal population numbers are hardly ever adjusted by actual starvation. This is what we have learnt since Malthus. Before population multiplies to the extent of over-eating its food supply other checks come into operation. A gradual lowering of vitality as well as predisposition to disease due to increased economic pressure and crowding lead to increased death rate while the birth rate also slackens if the population continues for long above its average abundance. What is accomplished by Nature haphazardly and resentlessly ought now to be made the basis of social policy and family creed. The most desirable method of solution is the new found economy of reproduction viz birth-control. A country like India or Japan, which has experienced such 'storms of breeding and

death'' must accept a policy of birth-control widely and systematically. Recently Japan has appointed a commission to inquire into the problem of population and birth-control and launched a propaganda of birth-control as an effective measure of solution of her population menace. The menace is much greater here on account of our less rapid industrialization, absence of emigration as well as less intensive exploitation of land resources. Certain social factors also emphasize the population menace in our country. Climate has contributed to earlier maturity in India, the majority of females being capable of matrimonial life by the age of 15, however unfit they may be physically. Thus the reproductive period in India is longer. Infant marriage is more common in India than in China and Japan. In the eastern districts of the United Provinces the race is more mixed than in the western districts. Where the lower castes and lower branches of wide-spread castes dominate, the rule of child marriage is adopted more strictly. Thus the age of puberty is earlier and infant marriage more common in the eastern than in the western districts of the United Provinces. The low social position of the Indian women, who are also protected in some degree against hard work in the field by taboos, also encourages frequent child-bearing irrespective of physical suffering and economic incapacity. The peasantry must give up many a time-worn custom and belief and acquire a new respect for woman and for man's social heritage and dignity before it can check poverty and the lowering of living standards. Neither a rapid industrialization nor improved agricultural methods, neither emigration overseas nor the opening out of new markets can employ or absorb the population which multiplies like fruit-flies and field-rats. The masses must understand the laws of population before we can evolve a rational economic system or check the steady lowering of their vitality.

Over-population is now a real menace with its accompaniments of poverty, low average expectation of life, and low

standard of living, and the question should be investigated in all its aspects, its relations to custom, law and rural public opinion, and its bearings on the problems of agriculture and industry, on public health and emigration, and on social welfare generally

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OVER-POPULATION IN JAUNPUR. ✓

CHAPTER I

GROWTH OF POPULATION DENSITY.

The factors which govern the density of population in an agricultural tract are geographical as well as social and political. All these factors interact with one another, and the absence of any one of them may bring down the density to a low figure. Physical configuration plays a remarkable part in determining the population density of an area, as continuous cultivation is impossible in a mountainous country. There is also a distinct correlation between the density of population and the quantity of rainfall. Thus the fertile alluvial soil of Sind degenerates into barren desert owing to the very scanty rainfall. Let us consider one by one these factors in the case of Jaunpur district.

Conditions of water supply

The agricultural water-supply of an area depends upon rainfall, wells, reservoirs, canals and other sources of irrigation. The effects of the pressure of population are seen in the progress of irrigation, particularly in those districts where the normal rainfall is relatively low.

Rainfall.

The normal rainfall of the district is 40.62 inches per year. In India agriculture depends more on rainfall and the configuration of the surface than on soil character. There is a distinct correlation between water supply and density of population. In districts where normal rainfall is below 30 inches per annum the deficiency outweighs all other factors in limiting agricultural productivity and population density —

Districts	Rainfall	Irrigation	Density
Jaunpur	41.80	45.5	745
Fyzabad	40.06	40.6	676
Bara Banka	39.00	24.2	585.5
Shahjahanpur	37.47	23.6	486.2
Allahabad	37.28	20.7	491.4
Budaun	32.80	10.1	484
Jhansi	34.30	10.2	166

The above table shows the relation between variations of rainfall and density. The contrast is more vivid and striking in the cases of Jaunpur and Jhansi. The distribution of rainfall with regard to time and place is more important than its amount. In spite of the fact that Cheerapoonjee records the highest rainfall its density of population is not the highest. It is not even higher than that of Jaunpur. A properly distributed rainfall of 40 inches is sufficient in our province and less than this or bad distribution may affect the success of cultivation considerably and ultimately the density of population. Thus it is clear that rainfall is a limiting factor in agriculture and rural density. The latter is governed by the interaction of a variety of natural and economic factors.

Irrigation

The possible sources of irrigation in our district are rivers, streams, lakes, swamps, tanks, ponds and wells. There is as yet no canal in the district.

Wells

The great support of the agricultural population of the district is the well. The whole of the district is honeycombed with *pakka* wells. This is due to the permanent settlement and is also an outcome of the land revenue policy of the Government. It is clear from the figures given below that the limits of well irrigation have been nearly reached under the existing hand and bullock power used by the peasantry. In unfavourable years the number of *kachcha* wells is generally increased —

Years.	Total wells of the district.	Irrigated area.	Area irrigated by wells.	Percentage of well-irrigated to total irrigated area.
1922-23	81,327	363,640	308,481	85
1923-24	81,071	353,828	303,040	86
1924-25	60,667	339,761	295,149	87
1925-26	60,281	353,300	311,180	88
1926-27	59,461	319,596	316,101	90
1927-28	46,947	177,437	173,440	97

The following figures for the years 1911 to 1928 illustrate the remarkable dependence of agriculture on well irrigation in some of the non-canal districts of the United Provinces. It also shows the extreme limit which well irrigation has reached in spite of a lowering of the water-level and other difficulties.—

District	Year	Total net cropped area	Estimated irrigable area	Well irrigated	Other sources	Total irrigated	Percentage of irrigated to estimated irrigable area
Jaunpur	1911-12	628,291	417,000	184,014	53,335	237,349	56.7
	1916-17	652,748	442,000	293,410	72,404	365,814	82.8
	1924-25	648,744	746,000	295,149	43,612	338,761	71.2
	1927-28	655,730	487,000	123,380	4,057	127,437	26.2
Benares	1911-12	471,317	185,000	108,001	25,322	133,323	91.9
	1916-17	483,185	195,000	148,371	37,824	186,195	95.3
	1924-25	474,643	207,000	131,038	10,229	141,267	68.0
	1927-28	523,699	214,000	157,006	10,777	167,783	78.4
Gorakhpur	1911-12	2,123,966	803,000	255,776	297,247	553,023	68.8
	1916-17	2,124,009	831,000	399,319	310,909	710,228	85.4
	1924-25	2,129,881	939,000	414,371	373,855	788,226	83.9
	1927-28	2,161,112	974,000	108,242	31,595	139,837	14.3
Azamgarh	1911-12	857,406	528,000	183,479	195,991	379,470	71.8
	1916-17	901,125	559,000	261,628	243,253	504,881	93.9
	1924-25	902,172	601,000	276,104	204,310	480,414	79.8
	1927-28	906,479	613,000	65,391	6,964	72,355	11.8

The above figures show that the percentage of irrigated to estimated irrigable area has reached a very high figure varying from 50 to 95.3 per cent and that the limit of well irrigation has been reached in some years.

It is also evident that the density of population is higher in well irrigated districts than in with canal irrigated districts. This is because

the percentage of irrigated cultivated and double cropped areas is higher in well irrigated districts. This will appear from the following table —

Districts.	Density of population per square mile.	Rural districts.	Normal rainfall.	Percentage of irrigated to irrigable areas.	Percentage of area cropped more than once to total cultivated area.	Percentage of irrigated area cropped more than once to total area cropped more than once
<i>Non-Canal districts.</i>						
Benares	898	704	29.99	68.2	23.8	1.3
Jaunpur	745	711	40.6	71.2	25.0	2.4
Gorakhpur	721	690	48.15	83.9	32.8	1.0
Azamgarh	660		40.43	79.9	40.	3.2
Ballia	679		41.44	63.6	4.6	1.4
Partabgarh	592		37.90	53.7	28.0	6.1
Gonda	534		44.55	71.4	43.6	4
<i>Canal districts</i>						
Meerut	663	545	28.09	36.8	33.4	1.3
Cawnpore	485	392	31.85	44.7	9.1	10.1
Muttra	427	350	23.61	40.3	12.5	6.

The table shows the various factors of agricultural productivity in relation to the density of population in different districts.⁽¹⁾

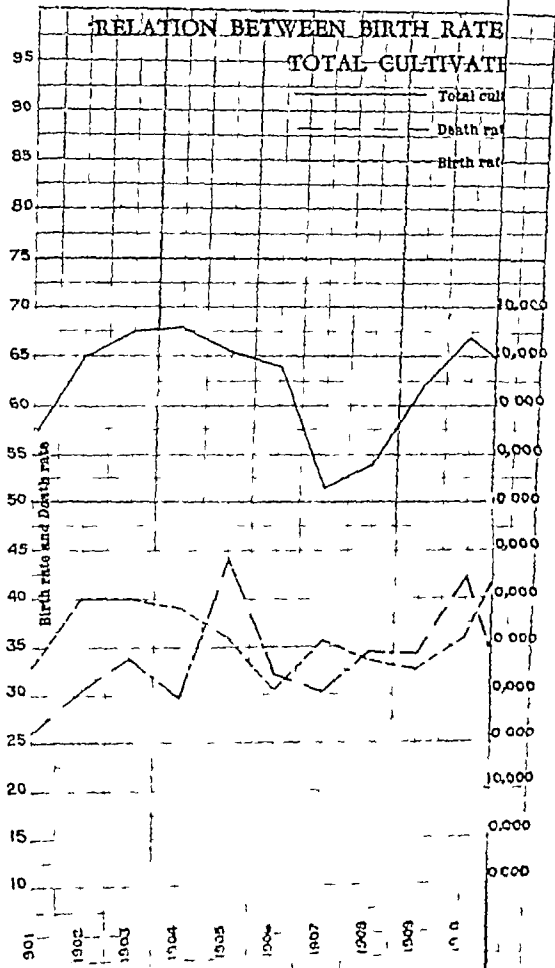
Other sources

These consist of rivers streams lakes swamps etc. The areas irrigated by these sources are negligible in comparison with well irrigated areas. Out of a total irrigated area of 127 437 acres of land 4 057 are irrigated from other sources.

Soil conditions and fertility

Increase of cultivated area and multiple cropping are the results of greater pressure on the land. With the increase of population people work harder to increase the food supply by cultivating waste land and also by raising two crops in a year from the same fields. Double cropping increases with the increase of irrigation facilities. In our

(1) R. K. Mukerjee's Memorandum on Irrigation in the Royal Agricultural Commission Report Evidence Volume U P



district the irrigation facilities are most secure, wells irrigating 97 per cent. of the total irrigated area. The districts of Azamgarh, Jaunpur, Gorakhpur and Basti show a much larger irrigated area than the canal districts. The *rabi* crops of these districts are protected by wells. Conditions are also favourable for the sinking of wells as water is quite near the surface level and firm soil needed for the proper sinking of a well is found in most tracts.

The non-canal districts show higher percentages of net cultivated as well as double cropped area to total cultivable area. Hence the population density of these districts is higher than in the canal districts. This fact is illustrated by the following table⁽¹⁾ —

Districts	Percentage to cultivable area of—		Normal rainfall	Percentage increase of density of population 1891—1921	Percentage increase of total net cropped area 1891—1924.
	Net cultivated area	Double cropped area.			
<i>Non-canal districts.</i>					
Benares ..	82 5	22 4	39 99	15 0	14 3
Azamgarh ..	77 3	20 1	40 42	14 8	10 2
Jaunpur ..	76 0	21 1	40 62	12 6	2 4
Gorakhpur ..	82 7	22 7	48 15	63 2	4 4
Basti	80 3	26 8	46 67	30 7	4 9
<i>Canal districts</i>					
Meerut . ..	82 4	18 8	18 09	17 5	1 6
Saharanpur	80 8	19 7	30 99	6 1	2 0
Muzaffarnagar .	75 5	8 9	29 67	15 2	5 5
Bulandshahr ..	80 8	24 7	26 0	13 8	4 1

'Relation between vital statistics and harvests

After having examined the effects of rainfall and other sources of water supply we should consider another important factor influencing population. In years of deficient rainfall there is a decline in the total cultivated area. Birth-rate falls during these years, but there is a corresponding increase in death-rate. But it is otherwise in good years.

(1) R. K. Mukerjee — "The Agricultural Regions of the Ganges Valley" *The Indian Journal of Economics*, 1928

When agricultural conditions are favourable and the cultivated area goes up birth rate increases and death-rate is lowered. This is evident from the following table —

Year	Birth-rate	Death rate	Total cultivated area,
1901	33 12	25 87	788 230
1902	40 18	30 54	820 456
1903	40 28	32 07	830 187
1904	39 26	29 67	822 861
1905	36 02	44 09	822 033
1906	36 36	32 02	816 910
1907	35 00	30 00	767 149
1908	33 63	34 21	777 710
1909	33 14	33 02	803 401
1910	33 84	42 21	827 510
1911	46 01	27 4	81 330
1912	41 20	56 20	820-829
1913	45 77	30 00	809 910
1914	39 43	30 68	801 180
1915	36 42	32 04	841 86
1916	38 78	24 15	810 551
1917	44 13	36 09	801 620
1918	33 11	00 30	723 618
1919	28 74	36 2	811 081
1920	31 21	22 10	792 431
1921	29 31	32 83	808 867
1922	23 43	29 01	73 618
1923	28 28	19 5	823 121
1924	27 48	24 51	811 44
1925	3 0	18 6	816 754
1926	29 01	1 24	829 070
1927	28 82	16 20	823 821

Early Enumerations.

The first recorded attempt to ascertain the population of the district was made in 1847. It was not merely incomplete but admittedly inaccurate, being based on estimates sent in by revenue and police officers. The total population was 798,503, recorded without distinction of sex, creed or race, and was obtained by counting the houses and taking an arbitrary number of occupants to each. In 1853 a regular census was taken showing the different columns for sex and religion, and also distinguishing agriculturists from others. This showed a population of 1,143,749, the average density being 737 to the square mile, the rate ranged from 1,328 in pargana Zafarabad to 617 in Mungia. There were 3,042 inhabited towns and villages, of which 2,861 contained less than 1,000 souls a piece, 182 between 1 and 5,000, and the three others were Jaunpur, Machhlisahi and Shahganj. A third census was taken in 1865, this showed a distinct improvement in method over both its predecessors. The total was 1,015,481, showing a density of 654 per square mile.

Census of 1872

This time the figures went up, probably due to better organization of the census agency. The number of inhabitants was 1,025,961, giving an average density of 659 to the square mile. There was a large increase in the Khutahan tahsil, and both Mauahu and Kirakat showed a greater population than before, though to a very small extent, but, on the other hand, Jaunpur and Machhlisahr had declined, particularly the former, presumably on account of its diminished area.

Census of 1881

In spite of the scarcity of 1877-78 and the occurrence of several epidemics the district generally was in a prosperous condition. The population showed a figure of 1,209,663. The density rose tremendously, showing 778.3 per square mile. The increase was due to greater accuracy in enumeration. On previous occasions the concealment of females was generally suspected, and the suspicion was confirmed by the results of this census.

Census of 1891

The increase had been maintained, though not at the same rate. In several years epidemics of small-pox and cholera had caused great mortality while another factor was emigration, which had been going on rapidly as a result of the increased pressure on the land. The total number of inhabitants was 1,264,949 or 55,286 more than that of the previous enumeration. As before, females showed a more rapid rate of progression than males. The density had risen to the remarkable figure of 816 to the square mile. The relative position of the

various tahsils in this respect remained unchanged Jaunpur coming first with a density of 992.8, followed by Kirakat with 82.7 and Khutahan with 79.2 while Manahu showed 790.7 and Machhlisbahr 710.6

Census of 1901

In this interval the district has suffered heavily from famine and a succession of bad seasons. The mortality too had been abnormally high and the inducement to emigrate stronger than ever before. It was not peculiar that a decrease should have been observed. The total was 1,202,920 or less by 62,029 than that of 1891. The density fell to an average of 775.6 to the square mile. Of the five tahsils Jaunpur headed the list with a mean rate of 959.5. Kirakat coming next with 768.5 and Manahu with 760.8 while that of Khutahan was 744.2 and Machhlisbahr 677.9.

Census of 1911

This time the figures went down due to the occurrence of several epidemics (plague, cholera and small pox). The mortality now had been abnormally high showing a rate of 52.90 per 100 as compared to 25.87 of 1901. It was not therefore surprising that a decrease should have been observed. The total was 1,155,254 or less by 15,666 than that of 1901. The density fell to an average of 745.9 to the square mile. Of the five tahsils Jaunpur headed the list with a mean density of 881.2. Kirakat coming next with 782.5. Manahu third with 762.4 while that of Khutahan 694.9 and Machhlisbahr 656.6.

Census of 1921

The last census took place on March 18, 1921. It showed a further decline of population due to influenza epidemic (1918) and the great world war. A large number of people were recruited in the Army from this district during the war. Although the number of deaths in the war was very few but the absence of so large a portion of the able-bodied men from their homes indirectly affected the population by lowering the birth rate. The disastrous epidemic year of 1918 was followed by scarcity and in 1920 there was again a crop failure. The total was 1,155,100 or less by 1,140 than that of 1911. The density fell to 740 to a square mile. Population of the district as a whole is stationary but a gain in the northern and eastern tahsils is balanced by a loss in the south. Kirakat in the east gains most. Machhlisbahr where the density is lowest loses most. Migration has decreased proportionately to the decrease of population. Emigrants largely exceed immigrants there is a considerable flow of labour to Benares.

TRICT.

1254,949

190

1202,920

191

1155,254

192

1155,105

Area and population of tahsils

Tahsils.	Area in sq miles	Number of—		number of occupied houses	Population				Percentage of variation		number of persons per sq mile in 1921.
		Towns	Villages		1921			1911	1911 to 1921	1901 to 1911	
					Persons	Males	Females					Both sexes
Jaunpur	282	2	731	54,467	251,726	126,719	125,007	248,520	+1 3	-7 7	893
Marichu .	320	1	616	49,051	235,169	114,773	120,396	240,794	-2 3	-1 2	735
Machhlisahr	344	2	612	50,759	217,596	107,678	109,918	225,893	-3 7	-3 3	633
Khutahan (Shahganj)	361	1	721	53,458	255,428	128,183	127,245	250,889	+1 8	-6 9	708
Krakat	243	1	454	39,653	195,186	97,127	98,059	190,158	+2 6	+1 6	803
Jaunpur district	1,550	7	3,134	247,388	1,155,105	574,480	580,675	1,156,254	- 1	-3 9	745

The great peculiarity of the Jaunpur district is that the number of females in the district is greater than that of males. There are four districts in the United Provinces where females outnumber males. They are as follows—

	Males.	Females.
Garhwal	232,863	244,323
Jaunpur	574,480	580,623
Mirzapur	361,635	362,648
Sultanpur	404,563	609,210

The main reason of the disparity of sexes seems to be that the emigrants especially the low caste such as the Chamars do not take their wives with them when they go to other provinces or foreign countries.

Migration

Let us now consider another important factor viz migration which affects the population density. The figures of 1921 are as follows. The actual population of the district is 1,234,755 from this number 189,229 people emigrated to distant districts and provinces while the number of immigrants is 57,579 only. Thus we arrive at the following conclusion

Natural population—(Emigrants—Immigrants)=Actual population
 $1,234,755 - (189,229 - 57,579) = 1,150,105$

The only immigrants are either women who came to the district from elsewhere on the occasion of their marriages or also official Marwaris and traders. Various causes can be attributed to emigration. The most important is the pressure on land and consequent severe economic struggle. Another cause is social custom. When a man is out-casted he emigrates to some other town. Migration is very extensive but in most cases it is of temporary nature. A large number of the Julahas and low caste Hindus are employed in the jute and other mills of Calcutta. The Mallahs work as boatmen throughout the river system of Bengal. The Chamars of the district particularly of Barakhat tahsil are renowned all over India (Moreland) working as gun and hon e-keepers both in regimental and private services. This constant stream of emigration is of great importance to the district as it constitutes a source of new wealth and means of relief to families in under-cultured holdings.

Religion.

Jaunpur is a Hindu district. The number of Hindus is 1,052,831 or 91.14 per cent of the whole population. Of the remainder 191,563 or 8.79 per cent are Musalmans, 121 Christians and 590 belong to other minor sects.

Hindus

The Hindus of Jaunpur resemble very much those of other districts in the province. The influence of Benares and specially of Shiva worship is very strong. The whole population is divided into the Vaishnavites, Ramanandis and Vallabhacharis and the worshippers of Panchon. Pn worship is fast fading away, but there are still a few illiterate countryfolk who adhere to it.

Hindu castes

The latest census divides the Hindus into 61 castes excluding subdivisions, while 22,909 come under the category of the unclassified. Below are given the figures for some of the main castes of the districts —

	Males	Females
Ahir	94,152	51,061
Brahman	73,231	72,423
Chamar	88,317	95,393
Dhobi	6,163	6,542

Chamars

First come the Chamars, aggregating 183,710 or 17.44 per cent. of the Hindus. They take the lead in Khutahan and Kerakat tahsils, but in the rest of the district they are evenly distributed. In rare cases they hold lands as tenants, but generally work in the fields as agricultural labourers of high class tenants. Most of them migrate to different provinces and work as grooms and house-keepers.

Brahmans

The Brahmans come next with a total population of 145,554 or 13.8 per cent of the total Hindu population. They preponderate in Mariahu and Machhlisshahr tahsils, and their numbers are small in Kirakat. The Brahmans of this place generally belong to the land-owning class, notably the Raja of Jaunpur and as proprietors they hold more land than any class excepting the Rajputs. They chiefly belong to Sarwaria sub-division, though Gaur, Kanyakubja and Saraswat are also represented.

Ahirs

The third place is occupied by the Ahirs formerly occupying the second place. Their number is 145 213 or 441 less than the Brahmins and represent 18·6 per cent of the Hindu inhabitants. Though their chief occupation is cattle breeding they also carry on agriculture. Their standard of husbandry is high.

Kshatriyas

They form a very important caste of the district. Their number 94 768 or a little above 9 per cent of the Hindu community of the district. The number of Kshatriyas in Kirakat tahsil is large and they are evenly distributed in all tahsils. They are exclusively landowners and cultivators though their cultivation is not of a high order. They generally depend upon hired labour as their caste rules debar them from handling the plough.

Muhammadans

The Sunnis are found in large numbers while the Shias are comparatively very few. Strained feelings between the two sects are not unknown and difficulties arise nearly every year on the occasion of the Chehlum and Muharram festivals. The latest census divides the Muslim community into 28 divisions. Below are given the figures for some of the sub branches of the community —

	Males.	Females
Darzi	2,314	2,473
Dhunia	4,300	4,003
Jalaha	11 149	11 713
Nai	2,900	3 161
Pathan	4 003	3 901
Sh-ikh	11 007	14 4 2

Sheikhs

The foremost place is taken by the Sheikhs with a total population of 22,802 or 23·5 per cent of the entire Muslim community. They preponderate in Jaunpur tahsils but elsewhere they are in the minority. As a class they rank high among the landed proprietors of the district. There are several families of note e.g. Mufti Halder Hussain's family etc.

Julahas

The second place is occupied by the Julahas with a total population of 22,892 or 22·5 per cent of the total community. Nearly one-third of them reside in the Machhlisshahr tahsil. The Julahas are weavers by profession and in most cases still follow the same pursuit.

The population-densities of Jaunpur and some of the advanced agricultural countries are given below —

	Density per square mile
Germany	332
Japan .. .	376
Franco .	195
United States of America	32
Belgium .	660
<i>Jaunpur</i>	745

On account of the natural advantages of large and favourable rainfall agriculture in India can support normally a much larger population than in the less favoured countries of Europe. Rice is the staple food crop of the district. The introduction of leguminous and catch crops and the utilization of organic manure have contributed also to the adjustment of soil resources to a dense population.

CHAPTER II

SIZE OF TENANTS HOLDINGS

As the population increases the pressure on the soil increases and with an increase in the pressure on the soil the size of the tenant's holding decreases. This tendency is encouraged to a large extent by the fertility of the land. The more fertile the land the greater the increase of population and the smaller the division of holdings.

History of fragmentation

It is easy to conceive that when our villages were first populated all the land comprised within it was in the possession of a few families mostly of the same caste who were the first to settle in them. The fields were then large and land being in plenty and the population sparse a considerable part of it remained uncultivated. Gradually a part of this land went into the possession of others by sale and gift with the gradual increase of population. What remained in the possession of the original settlers and what went into the possession of others were further sub-divided among their heirs or assignees and this process of sub-division has been going on from generation to generation. This is responsible for the smallness of holdings. In order to minimize the risk of cultivation the village community distributed its plots amongst the cultivators in such a way that each cultivator had several kinds of lands suiting various conditions allotted to him. Thus began the scattered fields in India. Previously it was done to secure equal advantage to each co-sharer but now instead of being an advantage to agriculture it has become an obstacle to efficient farming.

Factors that govern the size of holdings

The Hindu and Muhammadan laws of inheritance allow a definite share to all heirs. The operation of the law of succession not only leads to the division of large estates into small compact plots but also not infrequently to the splitting up of individual fields. Every heir tries to get a share from each field instead of so arranging the division that each may get as many whole fields as possible. Let us take a concrete example. Suppose a Hindu landholder dies leaving five different fields and five sons. Each of them instead of taking one plot will take a fifth part of each plot and thus there will be 25 fields instead of the original five.

Formerly the cultivation unit was the "joint family land" and partition was uncommon, but now the economic solidarity of the joint family has been affected by the individualism and Western ideas of property. The joint family system held the Hindu family intact for a very long time, but with the break-up of the family solidarity the whole structure of economic life is now threatened.

Nature of crop

There are certain crops which can be successfully cultivated in fields of small dimensions rather than in big ones. Rice is one of them. Sub-division is especially encouraged by the fact that for the cultivation of rice the land is broken up into plots surrounded by dykes and channels for the inflow and outflow of water. Rice represents the staple food of the district of Jaunpur and is cultivated extensively.

Out of 655,730 acres of cultivated area 171,695 acres are under rice. Rice occupies the second place as regards the area under different crops. This is also one of the reasons why holdings are so small in Jaunpur.

Rotation of crops

The practice of rotation of crops could succeed when each cultivating family had several kinds of land suiting various agricultural conditions. This is also responsible for the present distribution of fields. With the increase of population the rotation of crops has increased.

Effects of fragmentation

There are various disadvantages resulting from the fields being small and scattered. They may briefly be summarized as follows —

- (1) The farmer must, under present conditions, live in the village and visit his small and scattered fields to perform the field work which the current crop demands. He cannot live on his farm and be on the spot ready at all times to improve and guard his property.
- (2) Owing to the distance of the various parcels of land from each other agricultural implements must be carried to and brought back from the fields to the villages, and thus much time, labour and cattle power are wasted.

- (3) There is a great waste owing to unnecessary hedges and boundary marks occupying land, and requiring constant repairs trimmings etc Cactus and other hedge shrubs suck up the moisture of the soil and harbour agriculture pests
- (4) The crop in the fields requires careful watching especially when it begins to ripen to prevent depredations by wild and stray animals and thieves If all the fields of the farmer are in one block one or two men would be able to do the work But owing to their dispersion watching has to be neglected due to its prohibitive cost and the farmers suffer loss from petty theft and damage by animals
- (5) Wells cannot be sunk and pumps cannot be set up in each and every small field and so in dry seasons water the prime necessity of agriculture is not made fully available
- (6) Labour saving implements cannot be used for ploughing weeding threshing and other operations and economic farming has become impossible
- (7) Some of the small fields lose all facilities for communication and for irrigation from existing wells tanks and canals Disputes as regards right of way passage of water etc arise and lead to law suits and feuds which are ruinous to all concerned
- (8) Some of the small fields are thrown out of cultivation the proprietor not caring to undergo the trouble and expense of cultivating an outlying small piece of land
- (9) Change in rotation of crops is inconvenient The same system of cultivation has to be followed to avoid the risk of crops being destroyed by herds of cattle let loose on the surrounding fallow fields
- (10) With the smallness of holdings idleness increases as the cultivators do not get enough work for the whole year It leads to emigration both permanent and temporary

Main cause of ryot's poverty

The result of these causes is that agriculture on the whole hardly provides a decent living for the cultivator and his family What remains to him after paying rent and defraying the cost of cultivation is hardly.

sufficient, in the majority of cases, to last till the next season. What they generally do, is that they run to commercial centres just after Dewali festival to supplement their land income. Until the small and scattered holdings are consolidated and their future fragmentation prevented there is no chance for the cultivator to improve his economic condition. As Mr Keatinge observes, "he (the small holder) can only accept his poverty as due to some unknown cause and grumble indefinitely at the weather or the mahajan or the Government."

Remedial measures

The remedial measures are mainly two: those relating to the arrest of the further sub-division of land, and those relating to the re-union of lands already sub-divided. Of these the first is the more important and should be adopted at once, for if sub-divisions go on unchecked, small farming will go from bad to worse. After checking the process of further sub-division, the next step to be taken would be to re-unite the already divided parts and to effect consolidation.

Fractionalisation cannot be prevented unless the Government and the public co-operate in the matter. There is no custom here, such as is found in Europe where the Cod Napoleon is in force, of the elder brother buying out the younger ones and so becoming sole proprietor of the ancestral land. Rural public opinion should prevent the utility of land for agriculture from being reduced by minute sub-division. Plots of land which used, at one time, to be remunerative, economically fit for cultivation, have been reduced to a size which can barely support an agriculturist's family. If the masses of the people shut their eyes to the ever-increasing minute sub-divisions, agriculture, which is the chief industry of our country, will be more and more handicapped.

Reunion of divided lands

Reunion of divided lands can be achieved by different ways. *Voluntary exchange* of contiguous survey numbers or portions of them is one of the ways in which holdings of farmers can, to a certain extent, be consolidated or the irregularities of their shape corrected. This is only possible in the case of literate and sensible farmers. This tendency can be encouraged to a greater extent if the village panchayat or the members of the village co-operative society take interest in the matter and use their influence to promote exchanges by offering their services as mediators. The Government should also give such facilities.

an exemption from stamp and registration duties and compulsory transfer of the mortgage debt on the new parcel provided the security is not reduced. These facilities would give greater inducements to make exchanges. Austria, Belgium and other countries have passed special laws exempting cases of exchange of contiguous rural property from the usual stamp and other duties.

Restricted sale of right of occupancy

Suppose there is a plot of land to be sold. In such cases only the contiguous holders should be allowed to bid in the auction sale. This will help the consolidation of holdings. Such lands should be given to outsiders only when the owners of neighbouring fields do not want them.

Culberts scheme of co-operative consolidation

In a co-operative scheme each owner has to agree to the desirability of consolidation and to the general idea of repartition of village lands. With this end in view each such owner has then to agree to abide by any plan of repartition approved by two-thirds of all the owners and further to give up possession of his own land and to accept in exchange the lands allotted to him. All disputes are to be referred to arbitration. Possession so given is to be cultivating possession for four years only. On the expiration of this period the former possession is to be restored unless all the participating owners unanimously agree to retain the new division as permanent ownership. Persons accepting these conditions can form a co-operative consolidation of holdings society.

The merit of the scheme lies in its entirely voluntary basis. Compulsion in such cases is bound to cause failure. Further the temporary basis of the arrangement and the provision for reversion to former possession are allaying factors. Mr Strickland in an article in the Agricultural Journal of India Vol. 2 1927 points out that up to the end of July 1926 255 societies of holdings had been registered in the Punjab and the net result is that there are 12,640 owners while in the year 1921 there were only 1,683 proprietors. The average size of a field before consolidation was three-quarters of an acre now it is four acres.

Surely this is a great achievement which should inspire co-operators of our province to make similar efforts and thus remove one of the greatest handicaps to the progress of agriculture.

Fragmentation of holdings

The best way to study the problem of tenants' holdings would be to consider the problem of scatteredness and smallness of holdings in a particular village. For this purpose we have taken the village *Sirwa* in tahsil Jaunpur. There are 3,183 plots of land. The area of the village is 783 90 acres. The village is owned by 192 proprietors. The prevailing form of land tenure is pattidari. The preponderance of pattidaris has made shares in land very minute. Fractionalization and scatteredness of holdings are the rule in the village.

The total number of holdings in the village is 2,289. These holdings are minutely divided into 3,183 plots as the accompanying map will show.

Years	Average	Number of cultivators	Size of holdings
1926	636 60	188	3 38
1927	636 75	188	3 33
1928	647 20	192	3 3

The average holding comes to 3 3 acres per cultivator in the year 1928. Holdings have become more and more fragmented with the growth of population. Agriculture is showing the law of diminishing returns all round owing to the splitting up of fields. This fact can be very well grasped by taking concrete cases —

1 *Holding no 393* — The total area of the holding at the beginning was 88 acre. This was parcelled out thus —

Holding no	Shares	Acceage
593	$\frac{593}{1}$	0 22
	$\frac{593}{2}$	0 22
	$\frac{593}{3}$	0 22
	$\frac{593}{4}$	0 22

Plot no 593/1 was again sub-divided—

Plot $\frac{593}{1}$	$\frac{593}{1}$	0 11
	$\frac{593}{2}$	0 11

2 Holding no 708 —The total area was 7 acre It was divided in this manner —

Holding no.

708	$\frac{708}{1}$	0 1
	$\frac{708}{2}$	0 3
	$\frac{708}{3}$	0 3

Plot no 704/2 was again fractioned —

708	$\frac{708}{2}$	0 3
	$\frac{708}{1}$	
	$\frac{708}{2}$	0 1

3 Holding no 709 —The total area of 0.7 acre was divided into three shares —

Holding no.

709	$\frac{709}{1}$	0 1
	$\frac{709}{2}$	0 3
	$\frac{709}{3}$	0 3

Plot no 709/3 was again divided into three shares—

$\frac{709}{3}$	$\frac{709}{3}$	0 1
	$\frac{709}{1}$	
	$\frac{709}{3}$	0 1
	$\frac{709}{3}$	0 1

4 Holding no 718 —The total area of 0.18 acre was divided into two parts —

718	$\frac{718}{1}$	0 60
	$\frac{718}{2}$	0 70

family members cannot always afford to be there. If the cultivator is a well to-do man and engages a guard to watch his fields it will add to his expenses of cultivation and thus his profits would diminish. The cultivator cannot effect improvements nor dig new wells simply because the fields are too distant and scattered. As a matter of fact the fields nearer the village site are over worked while the outlying fields are apt to be neglected.

Methods for improvements—subsidiary industries

Agricultural improvements are impossible on such toy holdings for such holdings do not provide sufficient work for the peasants and leave them unemployed during considerable part of the year. Apart from increasing productivity by introducing heavy yielding crops another method of adjusting population to resources is the introduction of various subsidiary occupations e.g. fruit gardening market gardening dairy and stock breeding poultry keeping bamboo work hand weaving etc. In Bengal and the Punjab cottage sericulture is a useful supplementary occupation. In Jaunpur melon and water melon bring something like one and a half lakh of rupees. A very noteworthy development in agriculture has been the spread of tobacco growing in Jaunpur. Tobacco is a very heavy yielding crop and it flourishes especially in areas in Jaunpur proper where water is saltish. The next most important product of Jaunpur is radish for which our district is greatly renowned. Jaunpur radishes are very heavy sometimes weighing 20 or 25 seers each and are very sweet.

Heavy crops

The present population is supported on such small holdings by a fairly intensive type of farming. All the members of the cultivator's family often work in the fields. If the peasant toils alone small holdings will not pay, he also produces heavy crops e.g. sugarcane tobacco and garden crops including vegetables of all descriptions.

Improved implements

Where labour is so cheap and plentiful we cannot go in for labour-saving machines and implements. Suppose the cultivators intend to purchase improved implements where will they get the required capital? What about the repairing of big machines etc? When machines are not in use all the members of the family work in the fields but if machines be used a large number of people will be out of employment and this would upset the whole rural economy.

In order to remove the evils of smallness of holdings we should thus fall back upon some lucrative subsidiary employment and also try to introduce some heavy yielding crops or better crops of the same kind.

CHAPTER III

RELATION OF NUMBER OF WELLS TO HOLDINGS.

Sources of irrigation

The possible sources of irrigation are rivers, streams lakes, swamps, tanks, ponds and wells. There is practically no irrigation from rivers in the whole of the district in ordinary years, although minor streams which run from lake to lake or through swamps are largely used where they exist. Every isolated swamp or lake is, however, drawn upon and tanks and ponds are regular sources of water-supply. In fact, all available water is eagerly lifted, but the great support of the agricultural population is the well. There is as yet no canal in the district.

Extension of wells

The whole of the district is honeycombed with *pakka* wells. This is largely due to the permanent settlement and also to the land revenue policy of the Government. Out of the total cultivated area of 655,730 acres in the district, 127,437 acres are irrigated both by wells and other sources. There are 51,769 wells, both *pakka* and *kachcha*, watering 123,380 acres of land, whilst 4,057 acres derive water from other sources, i.e., streams, lakes, swamps, tanks and ponds. From the above figures it is clear that wells are the chief source of irrigation and they irrigate about 96.8 per cent of the total irrigated area. The number of masonry wells actually used is 35,299, while those available number 38,615. The number of non-masonry wells is 13,154, while 11,302 are actually used for irrigation purposes. No less than 386 *pakka* wells were built during the year 1927-28.

In 1886 there were 23,919 *pakka* wells and 28,505 *kachcha* wells, and the areas irrigated from them were respectively 250,900, and 127,034 acres. There was one *pakka* well to every $26\frac{1}{2}$ acres cultivated and every $21\frac{1}{2}$ acres irrigated (i.e., irrigated by any means, not merely by wells), while *kachcha* wells were one to every $22\frac{1}{2}$ acres cultivated area and $17\frac{1}{2}$ acres irrigated area.

The average area covered by one *pakka* well was $10\frac{1}{2}$ acres and that covered by one *kachcha* well was $1\frac{1}{2}$ acres

The figures in the annual statement of 1885 *Fash* show that the total number of *pakka* wells has gone up considerably while that of *kachcha* wells has gone down

The total cultivated area in the year 1885 *Fash* was 655 780 acres. Thus at present there is one *pakka* well for every 17 acres of cultivated area for every 25 6 acres of total area, for every 8 3 acres of irrigated area and for every 3 2 acres of area irrigated by wells of either sort—

There is one *kachcha* well for every 75 4 acres of total area 49 8 acres of cultivated area 9 6 acres of irrigated area and 9 3 acres of area irrigated by wells of either sort

When both kinds of wells are taken together they stand thus. There is one *pakka* or *kachcha* well for every 19 1 acres of total area 2 4 acres of cultivated area 2 4 acres of irrigated area and 2 3 acres of area irrigated by wells of either kind

Construction and cost of wells

Pakka wells are built (1) for irrigating and (2) for supplying water for drinking or manufacturing purposes. Many *pakka* wells were built by persons who wished to perpetuate their names or in connection with indigo factories

They are usually constructed of real masonry with large platforms from Rs 500 to Rs 1 000 or Rs 1 500 at the most. Wells built for brick making are of the same class as *pakka* irrigation wells i.e. made with bricks without mortar or platform. Sometimes the circumference of the *kachcha* wells is bricked to just above the water level and again at the mouth while the intervening space is left unbricked and the shaft is wattled with quails of twisted arhar stalks to above the water line. The following are the approximate costs for constructing wells in different tahsils —

Tahsil	Depth of water	Depth to water	Cost of <i>pakka</i> well	Cost of <i>kachcha</i> well
	Feet	Feet	Rs	Rs a p
Jaunpur	30	10	300	10 0 0
Manahu	25	12	180	8 0 0
Machhlshahr	24	12	160	6 0 0
Shahganj	27	8	180	5 0 0
Kerakat	32	8	280	7 0 0
District	27	10	220	7 3 0

These figures are the result of minute inquiries in the different tahsils of the district. If the all-round average cost of *pakka* well for the entire district is taken as Rs 220, then the total capital invested in *pakka* wells would come to something like 85 lakhs of rupees. In the same way assuming Rs 7-3-0 to be the average cost of a *kachcha* well, the expenditure over this head would be something like one lakh of rupees. Thus we get the enormous capital of 86 lakhs of rupees sunk in wells.

Irrigation other than by wells

The area thus irrigated is here shown by tahsils in descending order —

	Acres
Shahganj	2,443
Manahu	942
Jaunpur	339
Machhlshahr	321
Kerakat	12
Total	4,057

There is practically no irrigation from rivers or streams. There are only three streams worth mentioning —

(1) The Mangni, the Mangni or Mangha, which enters the north of Shahganj from Sultanpur. A great deal of water is contributed to this rivulet from jhils in Shahganj. Dams are erected at some places which irrigate the wheat and sugarcane fields.

(2) A stream of minor importance proceeds from tal Manikalan to tal Lakhimpur and jhil Amrauti. This stream is also used for irrigation.

(3) The Ganga rises in tal Kalan in mauza Ara and after entering Azamgarh returns and flows between Kerakat and Deogaon for some distance but this stream is very little irrigated from.

There are 76 lakes and swamps exceeding 20 bighas in extent. They are given below according to tahsils —

Tahsil.	Pargana.	Number of lakes or swamps.	Area.			
			Bigha.	Biswa	Biswaans	Acres
Khutahan Shahganj	Ungli	38	6 110	6	3	2,969 15
Machhlishahr	Mungra	9	2,250	15	9	1 458 35
	Ghiswa	4	1,234	13	12	800 59
	Garwara	7	454	0	12	300 88
	Total	50	3,949	9	13	2,559 82
Jaunpur	Rari	2	225	15	11	151 29
	Havelli	6	1 128	5	8	737 51
	Total	8	1,354	0	10	888 80
Mariahu	Barnathi	1	170	4	0	110 29
	Mariahu	6	906	7	4	887 88
	Total	7	1 076	11	4	698 17
Kerakat	Baldal	1	161	13	13	101 76
	Chandwak		110	7	0	71 51
	Total	3	271	0	19	173 27
District Total		76	12,778	8	18	8,283 1

It is evident that almost half the total area in the statement is found in one pargana, namely, Ungli Tahsil Machhlisshahr contains over one-fifth of the total area, i.e., this tahsil and pargana Ungli furnish over seven-ninths of the total submerged area, while the remaining two-ninths is almost confined to tahsils Jaunpur and Mariahu. Tahsil Kerakat contains only 173 acres out of a district total of 8,282. Even in this 173 acres Bialsi contains 102 acres. It will be seen that the positions the tahsils assume according to areas under swamps and lakes are as might be expected identical, with the exception of tahsils Machhlisshahr and Mariahu. Mariahu is second in the list according to land irrigated from other source than wells, but it is fourth according to lakes and swamps statistics. Machhlisshahr stands fourth according to land irrigated from other sources than wells, but it occupies the second position according to lakes and swamps. Although Jaunpur, Mariahu and Kerakat only contain between them 18 pees of water which exceed 20 bghas, still they all include an immense number of small ponds from which irrigation is effected.

Rainfall during the year 1927-28

	From April 1 to August 31			From September 1 to October 31			From November 1 to March 31, 1928			Total		
	Normal	1927	Number of rainy days	Normal	1927	Number of rainy days	Normal	1927-28	Number of rainy days	Normal	1927-28	Number of rainy days
Jaunpur	28 68	24 04	35	10 13	6 51	10	1 81	6 25	11	40 62	36 80	56

From the above table it appears that the total rainfall during the year 1927-28 was 36 80 inches, while the normal rainfall was 40 62 inches. Decrease of rainfall is always followed by an increase in the construction of new wells. The total number of new masonry wells constructed during the year 1927-28 was 386. This was the highest figure in the whole of the Benares division. Well construction is not so expensive a matter in Jaunpur as in the districts of Muttra, Etawah and Agra where the well water table is going down and the desert of Rajputana is fast approaching. The drying up of ponds during the non-monsoon months or during the failure of monsoon is a great incentive in furthering the growth of wells.

Relation of rainfall to net cultivated rabi and kharif areas

Year	Rainfall.				Net cultivated area.	Kharif area.	Rabi area.	Percentage of total rainfall to normal rainfall	Percentage of net cultivated area to normal cultivation.	Percentage of rain fall from April 1 to August 31 to normal rainfall.	Percentage of Kharif area to normal Kharif area.	Percentage of rainfall from September 1 to October 31 to normal rainfall.	Percentage of rabi area to normal
	Total.	From April 1 to August 31.	From September 1 to October 31.	From November to March 31.									
1901-02	24.9	24.0	2	17	638,861	440,107	246,040	61	99	84	95	2	94
1902-03	37.8	37.3	3	2	636,812	43,669	368,291	93	100	120	95	3	104
1903-04	54.0	34.0	19.5	15	538,501	417,226	411,000	133	101	119	91	102	112
1904-05	29.1	29.7	6.8	26	648,671	436,786	393,387	96	102	104	95	67	107
1905-06	37.49	26.61	89.7	2.41	642,675	469,826	351,460	92	101	0*	103	83	96
1906-07	37.46	28.59	3.72	5.15	644,160	460,000	253,879	92	102	100	100	37	96
1907-08	27.80	27.00	2.5	1.14	612,949	455,511	308,932	67	97	91	99	2	84
1908-09	33.08	22.19	9.62	27	612,616	428,324	340,269	81	96	81	90	95	95
1909-10	41.03	32.69	8.20	10.4	630,061	430,055	379,716	103	98	114	93	81	102
1910-11	43.82	25.68	12.80	6.24	637,877	429,001	306,112	106	101	90	93	126	108
1911-12	32.07	16.00	14.36	1.71	628,231	411,73	399,241	79	99	86	89	142	109
1912-13	33.6	26.71	2.77	4.14	642,166	428,034	380,249	82	101	93	95	27	105
1913-14	23.18	24.21	7.86	1.11	636,537	430,418	371,067	82	100	84	95	78	101

Relation of rainfall to net cultivated rabi and kharif areas

1914-15	40-25	35-71	1 58	2 56	634,171	450,000	367,852	69	100	125	93	19	100
1915-16	47 64	28 35	18 32	97	642,513	453,007	386,394	117	101	99	98	181	105
1916-17	41 75	34 85	6 07	83	652,743	449,750	394,910	103	103	122	98	60	105
1917-18	47 45	29 04	17 94	47	657,285	464,610	398,549	117	104	101	101	177	108
1918-19	23 89	17 41	3 84	2 84	617,732	436,318	335,168	50	97	61	95	38	91
1919-20	34 78	22 95	10 79	1 04	653,155	446,739	362,618	86	100	80	97	106	99
1920-21	30 82	26 14	3-43	1 25	635,691	439,671	351,910	76	100	91	95	34	96
1921-22	42 43	28 74	11 99	1 70	642,245	440,617	366,660	10	101	100	96	118	100
1922-23	52 19	34 75	15 78	1 66	647,541	432,876	388,985	128	101	121	94	156	106
1923-24	38 03	23 32	14 56	15	652,381	452,929	374,591	944	103	81	98	144	102
1924-25	34 55	24 50	8 70	1 35	648,744	435,630	377,415	85	102	85	94	86	103
1925-26	49 19	35 25	11 96	1 98	649,660	433,446	381,185	121	102	123	94	118	104
1926-27	32 18	20 46	9 13	2 59	647,338	442,902	364,882	79	102	71	96	90	99
1927-28	36 80	24 04	6 51	6 25	655,730	448,457	378,315	91	103	84	97	64	101
Normal	40-62	28 68	10-13	1 81	634,171	640,900	367,852						

Relation between fluctuations of rainfall and harvests

The total cultivated area generally increases or decreases with the fluctuations of rainfall. This is evident from the adjoining table. We see that the percentage of total rainfall to normal rainfall in the year 1916-17 is 103 again the corresponding figure for the percentage of net cultivated area to normal net cultivated area is also 103. Again in the year 1921-23 the percentage of total rainfall to normal rainfall is 104 while the percentage of net cultivated area to normal net cultivated area is 101. We see some differences in the two percentages in a few cases of the adjoining table. This is due to the fact that the cultivated area is not entirely depending on rainfall but on the well irrigation facilities.

Relation between kharif and rainfall

As the rainfall between April 1 and August 31 increases or decreases there is a corresponding increase or decrease in the *kharif* area. *Kharif* crop depends more on rainfall than the *rabi* crop. In the year 1915-16 the percentage of rainfall from April 1 to August 31 is 99 and the corresponding percentage of *kharif* area to normal *kharif* area is 98. Again in the year 1917-18 the percentage of rainfall from April to August 31 is 101 and the percentage of *kharif* area is also 101. Again we see that the two percentages are identical viz. 100 in the year 1906-7.

Relation between rabi and rainfall

Rabi does not depend as much on rainfall as *kharif*. To some extent the *rabi* area also depends upon rainfall between September 1 to October 31. In the year 1926-27 the percentage of rainfall from September 1 to October 31 was 90 while the percentage of *rabi* area to normal *rabi* area was 99. These figures go to prove that *rabi* does not depend much on rainfall.

Wells are defence works in unfavourable years of rainfall. It is clearly indicated by the sudden expansion of the well irrigated area whenever the rainfall is deficient. What is more common in Jaunpur is that rainfall is irregularly distributed. This will be evident from the following table —

Year	Percentage of deficiency of rainfall	Percentage of well-irrigated area.
1901-02	30	91
1907-08	33	97
1913-14	17	91
1918-19	41	97
1926-27	1	
1927-28	2	7

The expansion of the well irrigated area adequately protects the *rabi* crop. This is indicated by the fact that in unfavourable years the *rabi* area shrinks little if at all.

Relation of net cropped, twice cropped and irrigated area

Year	Total cropped area	Area cropped more than once	Irrigated area	Percentage of twice cropped area to total irrigated area	Percentage of irrigated area to total cropped area
1901-2	788,230	150,360	.	.	.
1902-3	820,156	181,614	.	.	.
1903-4	830,187	191,686	.	.	.
1904-5	832,861	181,100	.	.	.
1905-6	822,955	180,280	.	.	.
1906-7	816,940	172,780	361,736	48	44
1907-8	767,149	153,200	339,582	45	44
1908-9	777,716	165,100	318,859	47	45
1909-10	808,491	178,440	351,781	50	44
1910-11	827,510	189,033	217,621	87	26
1911-12	812,339	184,046	242,102	76	30
1912-13	820,829	178,663	371,234	48	45
1913-14	809,940	173,403	354,077	49	44
1914-15	801,180	167,009	363,684	46	45
1915-16	841,862	199,349	361,811	55	43
1916-17	846,551	123,803	371,006	52	44
1917-18	864,650	207,365	372,820	55	43
1918-19	773,618	155,886	361,973	43	47
1919-20	811,084	175,929	368,637	48	45
1920-21	793,451	157,760	371,787	42	47
1921-22	808,863	166,618	356,037	47	44
1922-23	823,648	176,107	367,480	48	44
1923-24	829,121	176,740	357,412	49	43
1924-25	814,788	166,044	342,737	48	42
1925-26	816,758	167,099	357,772	47	44
1926-27	809,670	162,332	353,220	46	44
1927-28	823,696	167,966	131,856	127	16

Relation between irrigation and double-cropping

Double-cropping depends mostly on irrigation facilities. As irrigation facilities increase, the double-cropped area also expands. Jaunpur has the benefits of an adequate rainfall. Moreover Jaunpur is well provided with *pakha* wells. Thus the security of water-supply is very great as is evident from the adjoining table. In the year 1927-28 the total irrigated area was 127,437 acres, while that irrigated by wells was 123,880. This shows that wells irrigate 77 per cent of the total irrigated area. The relation of double-cropping and irrigation facilities can also be established by taking the percentages of irrigated area to total cropped area and of twice cropped area to total irrigated area. As the percentage of irrigated area to total cropped area increases or decreases the percentage of twice cropped area to total irrigated area tends to rise or fall. In the year 1926-27 the percentage of irrigated area to total cropped area was 14; the corresponding percentage of twice cropped area to total irrigated area was 46.

Relation of well irrigated to irrigated area

Year	Wells		Wells constructed during the year	Total	Irrigated area	Area irrigated by wells	Percentage of wells irrigated to total irrigated area
	Masonry wells	Kachoha wells					
1901-2				42,214	250,228	306,147	91
1902-3				43,415	358,093	314,116	68
1903-4				42,400	265,665	282,154	77
1904-5				37,987	185,906	188,901	75
1905-6	27,019	13,413	243	40,675	334,904	290,698	87
1906-7	27,075	14,373	689	42,137	354,943	329,870	93
1907-8	27,812	18,261	619	46,792	331,309	322,591	97
1908-9	28,891	18,431	1,134	48,446	343,496	334,621	97
1909-10	29,605	17,723	911	48,331	350,087	315,427	90
1910-11	23,748	14,856	680	44,284	214,184	190,143	79

Year	Wells		Wells completed during the year	Total	Irrigated area	Area irrigated by well	Percentage of wells irrigated to total irrigated area
	Majority wells	Acres per well					
1911-12	29,519	14,567	500	33,580	247,749	181,011	73
1912-13	30,744	16,882	507	48,011	365,331	337,868	91
1913-14	31,451	16,848	970	49,279	348,707	319,129	91
1914-15	32,048	17,476	716	50,240	356,683	340,561	95
1915-16	32,737	17,216	653	50,206	357,128	299,740	81
1916-17	32,001	16,873	577	50,037	365,813	291,110	80
1917-18	32,000	16,076	580	49,646	368,452	293,591	80
1918-19	33,826	16,611	491	50,913	351,651	313,130	97
1919-20	34,157	16,120	519	50,705	363,970	328,907	90
1920-21	34,675	16,226	560	51,461	364,781	346,611	95
1921-22	35,013	15,747	662	51,118	352,511	316,961	90
1922-23	35,433	15,185	709	51,327	363,646	308,381	85
1923-24	35,782	14,618	671	51,071	353,028	304,915	86
1924-25	36,031	14,178	458	50,667	348,761	295,110	87
1925-26	36,463	13,236	582	50,281	353,392	312,159	88
1926-27	36,979	12,927	555	50,461	340,596	316,461	91
1927-28	35,299	11,302	386	46,987	127,437	121,380	97

Relation between well irrigation and size of holdings

Well irrigation is always associated with small holdings. The percentage of well irrigation to total irrigation in our district is 97, while the size of holding per cultivator in the year 1927-28 was 3.5 acres.

The proportion of well irrigation and the size of holdings in the important well-irrigated districts in the United Provinces is given below —

Year	District.	Percentage of area irrigated by wells to total irrigated area.	Average size of holding.
1927-28	Saharanpur	45	10.4
1927-28	Aligarh	60	9.8
1927-28	Allahabad	64	6.7
1927-28	Fyzabad	72	4.3
1927-28	Banaras	92	4.6
1927-28	Azamgarh	90	3.4
1927-28	Jaunpur	97	3.5

It is clear that holdings are generally speaking larger in districts where well irrigation is smaller and smaller where well irrigation is larger. Thus there is an inverse correspondence between the size of holdings and extent of well irrigation.

CHAPTER IV.

THE STANDARD OF LIFE.

It is an economic-law of the greatest importance that the earnings of any class, whether wage earners or agriculturists, tend to conform to their standard of living, which is judged by the income and expenditure of the class in question. 'The standard of living' is an elastic phrase, and it would be a hasty judgment to say that the standard of living of the people of Jaunpur is very low.

The life of an Indian cultivator is of the simplest kind as compared with the advanced countries of the West and Japan. In the majority of the villages bread made of maize, bajra or barley accompanied by pulse, and in rare cases by small quantities of vegetables, form the main dietary of an ordinary villager. It is only the rich who can afford to take ghee, while the rest of the population have to live on coarse food, and in many cases the quantity of food is somewhat insufficient and is very deficient in nutrition. Their clothing is very rough and cheap and their houses are made of mud walls and thatched roofs. They do not possess special clothes, as is common in the Western countries, for going to Church or appearing in public on special occasions. To arrive at a correct estimate of the standard of living of the people of the district we have to consider how far their food, clothing and shelter are sufficient to maintain their economic efficiency.

It would be better at this stage if we consider the budgets of some of the villagers of the district.

Annual family budget of a Brahman family consisting of 3 brothers 4 women and 3 children owning about 12 acres of cultivable land —

*Income**A — From the field—*

	Rs	a	p
(1) Jwar 8 maunds valued at	30	0	0
(2) Arhar 6 maunds „ „	30	0	0
(3) Tobacco „	50	0	0
(4) Urd 3 maunds „ „	25	0	0
(5) Til 1 maund „ „	10	0	0
(6) Rice 10 maunds „ „	40	0	0
(7) Maize 12 „ „ „	45	0	0
(8) Kakoni 2 „ „ „	10	0	0

			Rs.	a.	p.
(9) Grain	20 maunds valued at		80	0	0
(10) Barley	15 " "		80	0	0
(11) Wheat	18 " "		120	0	0
(1) Mattar	6 " "		30	0	0
(13) Sarso	" "		50	0	0
(14) Gur	12 " "		80	0	0
(15) Sale of surplus bhansa			20	0	0
			<hr/>		
			Total	700	0 0
B —Other sources (one brother is in service)				50	0 0
				<hr/>	
				750	0 0

		Rs.	a.	p.	
Less—					
Land revenue (for land)		97	8	0	
Payments made to labourers		100	0	0	
Seed—					
Fasillof Katik	60				
Ditto Asarh	10				
Sugarcane	10	80	0	0	207 8 0
		<hr/>		<hr/>	
		Net income	543	8	0
				<hr/>	

Expenditure

A	Produced at home—	Rs.	Rs.
(1) Barley	11 maunds valued at	60	—
(2) Gram	11 " "	80	
(3) Wheat	8 " "	45	
(4) Dal	4 " "	20	
(5) Rice	" "	8	133
		<hr/>	

<i>B.—Purchased from the market—</i>		Rs.	Rs.
(1) Clothing..	.	70	
(2) Footwear ..	.	10	
(3) Salt and spices .	.	5	
(4) Utensils .	..	5	
(5) Drained sugar .	.	10	100
<i>C —Other expenses—</i>			
(1) Repairing of houses	..	5	
(2) Kerosene oil .	.	3	8
<i>D —Miscellaneous expenses—</i>			
Litigation ..	.	20	
Miscellaneous ..	.	20	
Medicines ..	.	5	45
<i>E —Social expenses—</i>			30
<i>F —Purchases of cattle and other agricultural improvements—</i>			
1 pair of bullocks .	.	100	
Construction of a well		400	500
			<hr/>
		Total	836

There was deficit of Rs 293-8-0 and the family actually incurred a debt of Rs 300.

In this case the land revenue is only Rs 27-8-0 as the owners were zamindars before and after selling the property retained 12 acres of *sir* land

The expenses of cattle and the construction of *pakka* well are non-recurring.

On the whole the family is quite prosperous

Annual budget of a family of Chamars consisting of 1 man, 1 woman and 4 children owning about 8 acres of land as occupancy tenants.—

Income.

<i>A —From the field—</i>		Rs
(1) Wheat 5 maunds valued at	..	25
(2) Barley 10 „ „	..	45
(3) Gram 10 „ „		40
(4) Maize 10 „ „	..	40
(5) Arhar 2 „ „	.	6
(6) Sarso 3 „ „		20
(7) Gur 8 „ „		40
(8) Sale of surplus bhusa	.	20

<i>B—Sale of ghee</i>			Rs.
<i>C—Earnings of children</i>			30
			<u>4</u>
<i>Loss—</i>		Total	270
	Rs.		
Land revenue	72		
Seed	30		102
			<u>168</u>
	<i>Expenditure</i>	Net income	
<i>Produced at home—</i>	Rs.		
Gram 12 mounds valued at	48		
Barley 12 "	48		
Malt 4	16		
Dal	10		
Gur	2		124
<i>Purchased from the market—</i>			<u> </u>
Tobacco	4		
Clothes	20		
Spices	3		
Oil	2		
Medicines	2		
Sundries	15		46
		Total	<u>170</u>

Both the income and expenditure sides balance

The net profit per bigha is Rs 14 but if the peasant's own labour is fairly valued he is working at a loss

It is evident from the above family budget that nearly Rs. 74 of the net income is spent on food. It is clear from the above expenditure schedule that there is no provision for such necessities of efficiency as milk and ghee or better implements

The average agricultural income

About the year 1900 the average annual income of an Indian was officially calculated to be Rs 30 and taking an average family to be of five members the average annual family income was Rs 150. In

1911 the figure went to Rs. 80 *per capita*. In 1921 the average income table for Madras Presidency was Rs. 100, while for Bombay in rural localities it was Rs. 75. Now let us suppose that the average income of a villager is Rs. 80 at the present day in our province. It will be probably less in this Province as the dependence upon agriculture is greater and the size of the average holding less than in either Madras or Bombay.

More than anything else this governs the standard of living of an agricultural people. It is a matter of common knowledge that the holdings of agriculturists of this province are divided amongst them into very small plots and they generally range from 12-4 acres in Jalaun to 3-4 acres in Azamgarh. The average size of a tenant's holding in our district is 3-5 acres. The smallness of the holding makes cultivation totally uneconomic and leaves no chance for the cultivator to produce sufficient to support himself and his family in reasonable comfort after paying all his initial expenses. The situation becomes still worse when a farmer cultivates more than one field. As is usually the case they are often separated from one another by long distances, with the result that they have the evils of both under-sized and scattered holdings.

Nearly 76 per cent of the total population of the district depend upon agriculture as a chief source of their livelihood. Due to the overcrowding of agriculture the struggle for existence is becoming keener and keener, resulting in a tendency towards lower standard of living. In the following table we compare the percentages of net cropped area and the rise in population for the last 30 years —

	Percentage of increase of total net cropped area, 1891—1921	Percentage of total increase or decrease of population, 1891—1921
Gorakhpur	2-4	+9
Basti	5-4	+8
Benares	9-7	—9
Jaunpur	1-3	—9

Here we see that the total cropped area has increased by 1-3 per cent while the population has shown a downward trend and has decreased by 9 per cent. Population rapidly multiplied during the last century,

but now the expansion of both cultivation and population has been checked, and it is open to doubt whether the average individual is better off than a few decades ago

Another factor which can give light on the pressure of population is the double-cropped area

Year	Irrigated,	Non Irrigated,	Total	Increase or decrease per cent
	Acres	Acres.	Acres.	
1923-24	3,484	173,236	176,740	—6
1924-25	3,076	166,068	169,044	+6
1925-26	4,290	166,719	167,009	+63
1926-27	3,624	158,708	162,332	—28
1927-28	4,410	162,547	167,956	+24
Total	19,883	820,288	840,181	
Average	3,977	164,060	168,037	

From the above table it is clear that the double cropped area has increased in the year 1927-28 by 3.4 per cent. It shows that the pressure on land is becoming harder and harder

At the last census of United Provinces 1921 carried on by Mr F. H. H. Edye the number of births in the district between 1911 and 1920 were 448,889. The deaths in the same period were 450,799 thus there was a deficiency of births over deaths by 1,910. Various causes account for this. The first is the influenza epidemic of 1918 and the other is the great world war. Although actual deaths in the war were very few yet the absence of so large a portion of able-bodied men from their homes for a long period indirectly affected the birth rates.

The whole population of the district can very easily be divided under five principal heads viz agriculture industry commerce profession and others. Agriculture supports 875,297 persons or nearly 76 per cent of the total population. Industry 118,773 or nearly 10 per cent. Commerce 60,279 or 5 per cent. Professions 7,440 or 1 per cent. and other 98,816 or 8 per cent of the total population. Dr Harold H. Mann who made a special study of the economic conditions of rural areas and who

was for nearly a quarter of a century in intimate touch with agrarian problems, says, "No country could ever hope to be prosperous if the majority of the population were idle for 5 to 6 months of a year. The people must be given some work no matter how small the income derived therefrom during the dry season." The masses of Jaunpur need small-scale occupations either as a substitute for agriculture or as supplementary to it. There are a few sugar mills scattered here and there. Jaunpur is famous for oil and its (scent) throughout the whole of India. There are about 12 factories in the whole of the district. These oil factories and sugar works cannot provide sufficient remunerative work to a very large number of unemployed agriculturists during off season or bad harvest. Naturally these agriculturists run to commercial centres to earn their daily bread.

Indebtedness varies from village to village. Cultivators borrow money at the time of sowing and repay the same at the time of harvesting. The rate of interest differs from 12 to 50 per cent in ordinary cases. Where the holdings are very small the rate of interest goes up. The introduction of valuable and heavy yielding crops (sugarcane, vegetables, etc.) has reduced agricultural indebtedness to a very great extent. Another point to be taken into consideration is the increased agricultural efficiency of the district resulting from improved methods of cultivation, particularly in the matter of double-cropping, the use of manure and irrigation and the introduction of sugar presses and the establishment of sugar factories. Indebtedness is not so serious an evil in Jaunpur as in other neighbouring districts. The tenants at fixed rates at all events possess abundant credit and can raise money at rates which, comparatively speaking, are far from exorbitant.

The food which the cultivators consume is very unsatisfactory. In the real sense of the word they stuff their stomachs with coarse food which has no nourishing power. Vegetables and fruits do not form a part of the villagers' diet, they remain contented with *dal* and *bhat*. Arhar pulse is very common. Rice as compared with wheat is less nutritive and less expensive. Ghee and milk are classified as luxury, while in reality they help efficiency. Fishes are plentiful and often eaten. On ceremonial occasions bread of wheat is eaten. The Kshatriyas are very fond of meat and they eat the flesh of goat and sheep on special occasions.

The climate of the district is such that the cultivators do not require much clothing. They generally put on a *dhoti* and nothing more. The women folk put on a *sari* and a short jacket. On special occasions,

when the villagers go to the cities they would put on their *angarkha*, *turban* and *dhoti* and this would constitute their full dress

The houses are generally made of mud walls with thatched roofs. There is no proper provision for ventilation. Not one cultivator in a thousand resides in rented house. There are no furniture excepting the cots. The more well-to-do cultivators live in better houses than was formerly the case. Their women wear more jewellery and metal utensils are also in daily use in their households.

CHAPTER V

EMIGRATION

One of the most important factors influencing the variations of population is emigration. People leave their homes, friends and familiar circles and go out to earn their livelihood in regions unknown and unfamiliar because their native villages cannot provide them with adequate living. The pressure on the land has become so acute that it is very difficult for an ordinary cultivator to make both ends meet merely by following agriculture. In order to increase the family income one or two members of a family often choose to emigrate to some industrial town. There are various types of emigration.

Temporary

A large number of cultivators go to industrial centres during off seasons and bad harvests. They generally return during the busy season. Another type of temporary emigration is due to plague or other epidemics. Normally such movements are of a trivial nature, to the nearest grove or to a distance of a few miles. But instances occur when people migrate to another district or even leave this province. A large number of people migrated to Benares from Jaunpur during the plague in the year 1911.

Permanent emigration—emigration in search of work

This is chiefly from the Benares division. The pressure on the land has long been considerable in these parts. Mr E. A. H. Blunt remarked in United Provinces Census Report of 1911 that there is not a single family in the Benares division which has not at least one member in the provinces of Bengal, Assam and Bihar and Orissa. The lower classes go as labourers to Howrah, Calcutta and to the plantations of Assam and the higher as door-keepers, peons and so on.

(2) *Riverain emigration* —Practically the whole of the extensive river traffic of Bengal is in the hands of men of this province.

(3) *Emigration to collieries* —The Pasis of Oudh go in large number to the mining areas.

(4) *Military emigration* —A large number of soldiers are recruited from Rae Bareilly.

(5) *Emigration of domestic servants* — Jaunpur and Sultanpur supply about half the total number of syces and grass-cutters from Peshawar to Calcutta. They are mostly Jaiswara Chamars and Koeris. Jaunpur also sends its famous Luniyas wherever there is earthwork to be done.

The progress of migration in the district has been as follows —

Year	Emigrants.	Immigrants.
1901	158,851	71,463
1911	159,137	74,039
1921	139,229	59,579

Plague was severe in Jaunpur at census time in 1911. Increase in population of Benares was due to the refugees from plague from Jaunpur and elsewhere. The population wrote Mr E. A. H. Blunt has lost a great deal by emigration, and indeed a great deal more than the figures show for there is extensive overseas emigration from this district. The temporary decrease of immigrants plus the impetus given to emigration have between them turned the increase shown by the vital statistics into a decrease. In 1921 the number of emigrants decreased from 159,137 to 139,229 while immigrants decreased from 74,039 to 59,579. Migration has decreased proportionately to the decrease of population.

Emigrants largely exceed immigrants there is a considerable flow of labour to Bengal. Emigrants who go out send money to their villages for family expenses and it is interesting to note that twenty three and a half lakhs of rupees were sent to Jaunpur by the inland emigrants and Rs 81,333 by foreign emigrants in 1910 —

District.	Year	Amount in lakhs.	Inland (lakhs)	Foreign (thousands).
Ballia	1895	9½	10	5
	1905	17		
Jaunpur	1903	14	23½	31½
Ghazipur	1905	18½	16	6½
Azamgarh	1895	9½	20½	120
	1903	14		

District.	Year.	Amount in lakhs	Inland (lakhs).	Foreign (thousands)
Sultanpur .	1905—1907	20	23½	6½
Fyzabad .		.	24	11
Benares .			43	41
Basti .			12½	9
Gonda .		.	11½	6
Gorakhpur .			21	6½

During 1928-29, a sum of Rs 53½ lakhs was paid by money-order; a considerable part of this represented emigrants' remittances.

There is considerable emigration of temporary nature in the district. Generally it commences with the closing of the monsoon and ends with advent of summer. This is due to the fluctuations of the demand of labour in the fields. Agriculture is the main industry of the district as is evident from the table given below.

Year.	Agriculture.				Industry				Commerce				Profession.				Others			
	Population supported by Agriculture.	Proportion of agricultural population per 1 000 of district population.	Actual workers.	Percentage of agricultural population of—	Population supported by industry	Proportion of industrial population per 100 of district population.	Actual workers.	Percentage of industrial population of—	Population supported by commerce	Proportion of commerce population per 1 000 of district population.	Actual workers.	Percentage of commercial population of—	Population supported by profession.	Proportion of professional population per 1 000 of district population.	Actual workers.	Percentage of professional population of—	Population supported by others.	Proportion of population per 1 000 of district population.	Actual workers.	Percentage of population of—
1911	943,708	816	44	56	106,798	93	57	43	44,194	38	51	49	5,403	5	43	57	108,316	85	80	41
1921	875,287	758	53	47	113,773	98	44	56	60,279	53	40	51	7,440	6	39	61	108,316	85	80	41

From the above table it is clear that the pressure on land has decreased to some extent at the last census. In the year 1911, 81.6 per cent of the entire district population was supported by agriculture, but now agriculture is supporting 75.8 per cent. Further, in the year 1911 every 11 workers engaged in agriculture had to support 14 dependants, now 53 workers have to support 47 dependants. Families, agricultural by origin, show a tendency to resort to industrial, commercial, professional and other pursuits.

Lack of subsidiary industries

Jaunpur is renowned from the time of the Shariq Kings as an important oil and scent producing centre, but this industry is not so important as to alleviate pressure on the soil. Moreover, the industry is not on such a large scale as to engage considerable number of workers, but is carried on in the old primitive style. There was a time when there were indigo factories employing a considerable number of labourers, but this industry has totally declined owing to the keen competition of Germany. The same is the case with the paper manufacture of Zafarabad, a pargana in the district. The labourers of that industry are working in the Lucknow Paper Mill now as they could not face the competition. Sugar refining is the only other industry worthy of mention. The sugar mills are busy in winter and employ only a small fraction of the idle labourers of the region. There is, on the whole, an inadequate number of industrial occupations in the district, hence emigration is resorted to —

Emigration

Year	Total emigration	Contiguous district or state in province	Other parts of province	Contiguous parts of other provinces and states	Non-contiguous parts of other provinces, etc
1911	159,137	87,000	22,000		50,000
1921	139,229	73,000	14,000		52,000

More than half the emigrants are working in the province and 52,000 are working in other parts of India. A large number of the Chamars go every year from Kerakat, Jaunpur and Machhlisahi tahsils and work as syces and grass-cutters.

Commercial cities of Bengal and Bombay have become the favourite resorts of people from this district. During the months of October to April a large number of labourers work in the factories and get higher wages.

Emigration to the tea plantations in Assam from this district has almost ceased as is evident from the table below —

Tea gardening

Year	Male.	Female	Dependants	Total
1925	1	1		2
1926	3	1	5	9
1927		1	0	9
1928	4	"	1	

In 1926 one Mr T Martar was commissioned by the tea magnates of Assam to inquire into the possibilities of the recruitment of labourers to the tea estates. He summed up the results of his inquiries in a short sentence which runs thus — There seems no possibility of obtaining labour from the eastern districts at present. We have to wait for some years until the prejudice about the tea plantations has cooled down. Persons who have returned from the tea estates tell tales about the atrocities to which they were subjected by the employers during their stay in Assam. The villagers are so much frightened by the tea estates that they regard them as another Kala Pani. Another reason for this prejudice among the villagers is that many labourers died there due to malarial fever.

Emigration as a result of failure of crops

Crops generally depend upon irrigation facilities. The *kharif* depends upon rainfall more than the *rabi*. During the recent failure of the *kharif* crop while we were touring we found that about 20 villagers had migrated to Calcutta and other distant centres from a single small village of Ambarpur. We were told that it is *bathua* (a kind of grass) and *sakarkand* which were keeping alive the population otherwise people would have starved or migrated *en masse* to some other industrial centres in hunt for their livelihood.

When a man is outcasted by the members of a caste he seeks shelter in some big city. This is also a cause of emigration, but the figures under this head are negligible.

The total number of emigrants that sailed from Calcutta to various British Colonies between 1901 and 1910 and who belonged to Jaunpur was 3,007. Between 1911 and 1917 the number was 701. With the end of the great world war this emigration has ceased.

This year the emigration is still brisk owing to the failure of the *kharij* crop. As the pressure on land has been considerable, there is a direct correspondence between the volume of emigration and condition of the harvests.

CHAPTER VI.

AGRICULTURAL WAGES

In our district as the size of holdings is very small there is no great demand for hired labour. If the cultivator engages hired labour his field will not pay at all. Hence wages are low. On the other hand the supply of labour is going up as the pressure on land is considerably high and the number of expropriated tenants or land-owners is increasing decade by decade.

Increase of landless labourers

The growth of population has reacted very unfavourably on the economic life of the people. Holdings have become more and more under sized probably the holdings are the smallest in the provinces being 3.5 acres per cultivator. Cultivators are in a very precarious condition either they must supplement their incomes or surrender themselves completely to the money lenders. Those cultivators who have very small holdings often work as Halwahas or agricultural labourers in the fields of big cultivators. This has become a prominent feature in the country side.

The Halwahas are agriculturists by origin but have lost their cultivating tenures and have taken recourse to domestic service and are freely employed by high cultivating classes both the Brahmans and Kshatriyas who are forbidden by religion to till the land themselves. Mr G. Kentinge remarks in his *Agricultural Progress in Western India* — We have the landless labourers who work for hire a class which is steadily recruited from the smaller landholders as the pressure of population in the most densely peopled tracts squeezes them out of the position of landholders.

The causes of this abnormally high increase in the number of Halwahas are manifold. The lack of sufficient work for the people is a common complaint in India. The work done by an average cultivator in the Punjab does not represent more than 150 days' work in the year. Thus they are out of employment for 200 days in the year. For this period they should have some work. This will keep them engaged and also supplement their incomes. The Banking Inquiry Committee have recently estimated that the United Provinces peasant is occupied outside the more intensely cultivated areas of the Province for not more

than 200 days. If the holding be very small, the cultivator's family is not fully employed even in the busy season.

Absentee landlordism

Absentee landlordism has also contributed a great deal to the increase of agricultural labourers in the district. Landlords usually migrate to towns and do not know what is going on in their fields; it is in reality their farm servants and field labourers who manage their lands. Absentee landlords have nothing to do with cultivation, they want their rents only.

Wages paid

Actual wages paid differ in different villages. Only some 10 years back wages were paid in kind. In the time of Akbar land revenue could be paid in kind, but now the practice of paying rent and wages in kind is fast dying out. In most cases farm servants are given rent-free lands for their services by the landlords. It would be better at this stage to consider the wages paid in different villages.

Ambarpur

Farm servants are paid both in cash and in kind. A ploughman gets four annas for ploughing a field up to 12 o'clock in the day. An adult labourer, male or female, is paid two annas per day on a seer and a quarter of barley. Boys are paid at a slightly lower rate, i.e., they get one anna per day. When a labourer is employed for spadework in the field he is paid the usual two annas together with *sutua* in the noon or some other *charban* (a kind of coarse food). At the time of *khaliani* (harvesting) the barber, washerman and blacksmith all come to take their share. In villages these barbers, washermen, etc., are not paid in cash as in cities, they are paid at the harvesting time at a fixed rate. Suppose a barber crops the hair and shaves a man all the year round, he will be paid 5 seers of barley and one bundle of unhusked barley in Chat or reaping season. In the same way washermen are paid according to the number of women in the family. Thus if there is one woman in the family, the washerman will get two and a half seers of barley together with one bundle of unhusked barley. The *Lohar* is also paid the same amount.

Baragaon

Baragaon is a prosperous village some 6 miles off from Shahganj, a tahsil in Jaunpur. Wages are considerably higher here than in Ambarpur, a village in Marahu tahsil. Here ploughmen are paid at the rate of eight annas per plough. Male and female labourers get five annas

per day, while boys get four annas. The Lohar gets 15 seers of corn per year, while the Dhobi gets 5 seers per year per female. The Nau (barber) is paid 5 seers per year per man.

Mangra

Mangra is a very village two miles west of Bhanaur station. The ploughman (Halwaha) is given four annas per diem. Field labour is also very cheap and the wages are not different for adults male or female and boys. It is customary to pay all of them at the same rate. Here wages are generally paid in kind. When a labourer is engaged in harvesting a rice field he is given two seers of corn per day. As regards the wages of the Lohar, Dhobi etc. it is the same as in other villages.

These stray cases of three different villages will suffice to illustrate differences of wages in different areas.

Effect of low wages on the standard of living

Farm servants are chiefly recruited from the Chamar, Loma, Koeri and Kewat castes. They generally get very low wages, thus their standard of life is the lowest. They generally live on very coarse food and are very poorly clothed. Their houses also are very insanitary and dingy.

Comparison of agricultural with industrial wages

Industrial wages are higher than agricultural wages. The highest agricultural wage which the ploughman gets is eight annas per diem, while carpenters, blacksmiths, masons and other skilled labourers draw much higher wages. In Jaunpur proper the carpenter gets one rupee per day, the mason gets fourteen annas and the blacksmith gets twelve annas per day. Unskilled labour which is chiefly employed in agriculture is very cheap. There is a marked difference between the standard of living of an industrial worker and that of an agricultural worker. An agricultural worker cannot meet the requirements of his bare necessities, while an industrial worker can very easily have his necessities and can have some articles of efficiency as well e.g. milk or some ghee in his dal.

Wages differ according to the seasons. Wages are cheap in villages from October to April and high during sowing and harvesting times.

One special feature of rural economy is the employment of women as partners in different agricultural operations. A good physique enables them to work successfully as co-partners in the open fields. When crops are growing weeds thrive and these are required to be exterminated. Women are generally employed in this work which is known as - *sohnu*.

or weeding Besides *sohni* women are engaged in harvesting and assisting their husbands in sundry work on the fields and also in fishing and gardening Women are generally employed because they get lower wages They participate with their husbands in practically all works except digging and ploughing

Wages are very low when the harvest fails When the labourer is starving he would be willing to work even on very small wages. This is exactly what has happened this year owing to the failure of the *khari* crop

The general wage level in the district is very low and is a striking index of low standard of living The pressure of population, small holdings, small income, idle days and low wages, all have reacted very unfavourably on the economic life of the farm-hands The condition of the agricultural labourers cannot improve unless their number is reduced by systematic emigration to different industrial centres Unless this is done the agricultural labourer will be living below the economic level and cannot even in the best of years make ends meet

CHAPTER VII.

RURAL HOUSING

The question of providing well built and sanitary cottages in India is of great importance. There are very few cottages in villages which can be considered satisfactory from the sanitary point of view. In the average village the great majority of the cottages are made of mud and contain no provision for ventilation. They have usually no drainage and are often crowded together in a pell mell fashion. They have no proper provision for the storage of grain and fodder nor have they proper accommodation for cattle. The water supply of such villages is invariably from shallow wells and the water in these wells is often polluted from the surface.

The result of these conditions is that a high mortality from preventable diseases prevails in practically every village of the district.

Such is not only the condition of the Jaunpur district but generally speaking of all the eastern districts of the province. Hence the problem of rural housing demands careful and immediate attention of the people at large. On account of grinding poverty the villagers cannot care much for their houses 90 per cent of their total expenditure are on food clothing rent and interest. Little is available for making permanent improvement both in land and housing. The average villager is illiterate and hence he cannot realize what decent housing means.

Pressure on the accommodation in the huts is the chief feature in the villages due to the rapid increase of population. Better methods of cropping and rotation of crops have been adopted but the problem of housing is totally ignored at the cost of health and the amenities of life.

Houses are clustered together at all angles in a congested space resulting in dense overcrowding. There is no village road as in England flanked on both sides by stone or brick houses with a few shops the village church the village inn and the recreation room located here and there. Indeed in the English sense of the word there is rarely a village.

at all, although in several parts of the district the homesteads of the villagers are grouped together in clusters. Nowhere are houses built of masonry, nor is there a single row of houses as is usual in the European villages. Worship among the Hindus is a family affair celebrated in their own houses, while amongst the Muhammadans it is congregational. Hence mosques are more common than temples. Nobody in the district, whether a cultivator or one engaged in some other profession, lives in a hired house. The peasant or the workman, although paying rent for the land to a landlord, always builds his own house at his own expense. This is the custom with all classes of the community, and we doubt if one man in a thousand in any part of the district lives in a hired house or in a house not erected by himself or at his own expense. This has always seemed to us one of the most effective points of contrast between Indian and English conditions. The homesteads do not display as much variety in construction or arrangement as might be expected on this account. They conform to a common type amongst all classes of the community, and tend also to cover almost equal extent of ground.

The huts generally consist of only one dingy room which is kitchen, dormitory, parlour and in many a case cattle-shed combined into one. There is generally one door at the entrance. The only furniture of the house is cots. The absence of furniture is more a question of poverty than of anything else, although climate has some influence. The huts vary in size and number according to the prosperity of the family.

The first impression of even a most casual visitor in these little huts is that they serve much more the purposes of a dormitory and storage than as places where humanity can comfortably live. The man who rises at dawn and does not return from work before sunset spends very little time inside his house.

In most cases people keep their cattle just in front of their houses, under some tree if available. Naturally the excreta of the cattle poison the atmosphere of the locality. This tells a great deal on the health of the villagers. Brought up in such foul atmosphere they have no idea whatsoever about sanitation. Hardly out of hundred houses one house has got a window. The cottages are mostly damp and dingy and huddled together.

Let us now consider the average number of persons per house, the number of houses per square mile, and the density of population for the last 40 years. In this way we shall be able to form an idea about the

pressure on the accommodation in the huts and also of overcrowding in the district —

Year	Average number of persons per house.	Average number of houses per square mile	Density of population per square mile
1881	5.9	132	780
1891	5.7	143	816
1901	5.4	144	776
1911	4.7	158	746
1921	4.6	160	745

It is evident from the above table that the average number of persons per house has gone considerably down from 5.9 in 1881 to 4.6 in 1921 but the average number of houses per square mile has increased from 132 in 1881 to 160 in 1921 resulting in serious congestion. The increase in the total number of houses has not kept pace with the expansion of population. The density of population has gone down from 816 persons per square mile in 1891 to 745 in 1921.

Before going into details about the village it is better to have a general idea about the district from the latest census report. There are 7 towns and 8,134 villages in the whole of the district. The district contains 247,388 occupied houses sheltering a population of 1,155,105 the average number of persons living per house being 4.6. This average differs with different tahsils —

	Number of occupied houses.	Population in 1921	Number of persons per square mile.	Number of persons per house
Jaunpur	54,497	251,725	893	4.6
Mariahat	40,061	235,169	735	4.78
Machhlishahr	50,759	217,598	633	4.3
Khutahan Shahganj	53,458	255,428	708	4.7
Kerakat	39,653	195,186	803	4.9
Total of the district	247,388	1,155,105	745	4.6

It is clear that the number of persons per house is the largest in Kerakat, next comes Mariahu and then Shahganj

Ambarpur

This village is situated in pargana Mariahu. There are 74 houses in all in the village. It is chiefly inhabited by the Kshatriyas, Ahirs and Chamars. A survey was made of nearly all the houses in the village and the size of rooms and number of persons noted. The houses were made of mud walls with tiled roofs (khapras), with the exception of five huts belonging to Chamars.

The dimensions of a Chamar's house were $20' \times 12' \times 7'$ and it was occupied by 9 persons. The owner of the house told us that he kept his two cows inside at night as there was no space outside. 'What a noxious atmosphere they breathed!' Next we visited a Thakur's house which measured $45' \times 38' \times 8'$. There was only one door in front. The occupants seemed to be better off, and there was some arrangement for ventilation also. Next we saw an Ahir's house with dimensions of $42' \times 33' \times 9'$ which was inhabited by 12 persons. The inmates were thin, diseased and dirty. There was no sense of privacy whatsoever.

In village *Paltupur*, tahsil Mariahu, pargana Barsathi, there are 161 houses sheltering a population of 765 persons, of whom 716 are Hindus and 49 Muhammadans. The average number of persons living in each house is five. The huts are small, ill-ventilated and ill-thatched. The dimensions of an Ahir's house which we measured were $52' \times 36' \times 11'$. It gave shelter to 22 men, all unhealthy and poorly dressed.

Disease and sickness are rife in such huts, and there is a total absence of decency. It is impossible to observe any sense of privacy in huts of this type.

Saphi is a small village containing 70 houses with a population of 357 persons, all Hindus. The first house which we visited was that of a Chamar measuring $33' \times 39' \times 6'$. It was a tiled cottage. The number of inhabitants was eleven, all healthy. They were carrying on agriculture and had one separate cattle-shed. Next we came across a Thakur's house. It was quite spacious, and on inquiry we were told that he was the zamindar of the village. There were 5 men, all in good health.

Mangra is a very big village and is chiefly inhabited by the Chamars, Pasis, Lohars and Thakurs. The average dimensions of a house were $35' \times 20' \times 8'$. The general health of the people was not satisfactory on inquiry we were told that the Health Officer never visited the village.

Saram Mohiuddin

The village is 6 miles west of Shahganj tahsil. It is a beautiful village connected by a metalled road which goes to Shahganj. In this village we found two rows of houses running parallel to the road. There are good many *pakka* houses in the village which is chiefly inhabited by the Brahmans, Koeris and Banias. The dimensions of a Koeri's house were $31' \times 22' \times 10'$. It gave shelter to 8 persons. Next we visited a Dhuni's house which was also quite spacious.

Baragaon

From the very look of the village one can very well understand about the general prosperity of the people. There are more than two dozen *pakka* houses of modern style. The village contains 548 houses with a population of 2469. The average number of inhabitants per house is 4.5.

The average area occupied by homesteads in the district also varies with density and prosperity. A prosperous family builds larger huts and more of them. What struck us most was that the houses of the higher classes were more commodious, more decent and better built while those of the lower castes were small, low roofed and ill ventilated. The next thing which struck us was about the sense of privacy. It is observed most in higher castes as the houses of these people are quite spacious while it is little observed in the lower castes as the houses are small. In some villages we were shocked to see 12 or 14 persons, young and old living together more like cattle than men.

In Bengal the houses in which the peasants live are usually grouped round a spacious courtyard, cowsheds and out-houses standing sometimes in the same quadrangle but more often a little back from it.¹ The area given up to gardens in Bengal is much larger than elsewhere while our huts are planned on a different footing. They are situated very close to each other with narrow lanes. There are no regular cattle-sheds in many cases, both men and cattle share the same habitation.

An eminent author has remarked that if one wishes to study the civilization of a particular nationality he should study its housing conditions. It is from the dwelling that one forms his opinion about the standard of living.

(33)

The health staff of the district is carrying on a regular propaganda on hygiene and sanitation. A very healthy scheme of village ad has been introduced by Dr A. Sousa, F.R.C.S. (London), D.P.H. (Ireland), in our province, and if this scheme becomes successful most of the difficulties in our way of improving villages will be solved. As regards sanitation it aims at the following —

- (1) Digging of pits by the villagers in the fields for keeping manure about 100 feet away from *abad* (the pits to be big enough for the whole year's manure)
- (2) Removal regularly of the manure heaps to these pits
- (3) Making of soakage pits for waste water
- (4) Performance of nature's call 300 yards from the *abad*

Sanitary Inspectors are deputed in every tahsil to popularize this scheme. They have selected a few important villages in the tahsils and are giving regular demonstrations.

With the success of this scheme some advance towards rural sanitation will be effected.

CHAPTER VIII.

RETROSPECT AND CONCLUSION

The pressure on agriculture can be very well understood if we compare the increase of net cultivated area with the increase of population in the district. The total area of the district is 991 864 acres or 1 549 79 square miles

Year	Net cultivated area.	Percentage of net cultivated to total area.	Increase of net cultivated area from 1841
			Per cent.
1841	592,240	59.7	100
1867	594,060	59.9	103.3
1883 --	638,511	64.4	107.8
1890 --	660,666	66.5	101.4
1906	644,140	64.9	108.7
1916	652,743	65.8	110.2
1927	655,730	66.1	110.7

The extension of cultivation has only been effected by reclamation of soil which in former days was not considered worth the labour and expenses of tillage. As population has expanded fresh soil has been reclaimed to cope with the pressure.

Year	Population.	Increase from the year 1847
		Per cent.
1847	798,503	100
1863	1,143,749	143
1885	1,015,481	127
1872	1,025,961	128
1881	1,209,663	151
1891	1,364,949	168
1901	1,202,920	150
1911	1,156,254	144
1921	1,155,106	144

It is clear from the above table that the population has increased at a faster rate than the cultivated area and ultimately the food supply. The cultivated area has increased in the last 80 years by 11 per cent., while the population has increased by 44 per cent. We see that the limit has been reached in the direction of extensive farming as the cultivated area in the district now forms 94 per cent of the estimated cultivable area of the district.

Thus more and more the proportion of double-cropped area (i.e., intensive farming) will govern the increase of population in the near future.

Thus of considerable importance from an economic point of view is the increase in the area bearing two crops in the year —

Year	Double-cropped area	Total cropped area	Percentage of double-cropped to total cropped area
1896 (average)	147,192		22.4
1906	172,780	816,940	21.2
1916	193,803	846,551	22.9
1927	167,996	823,696	22.4

At this stage it would be convenient to compare the double-cropped area of other districts of the province where the pressure on land is not so very severe.

District	Double-cropped area	Total cropped area	Percentage
Meerut	334,078	1,426,032	23.4
Azamgarh	203,229	1,109,708	18.3
Gorakhpur	619,253	2,780,365	22.3
Muttra	54,634	735,029	7.4
Agra	73,412	832,481	8.8

These figures indicate that the pressure on the land is very high and the law of diminishing returns is working rigorously. Thus it is not possible for an ordinary agriculturist to maintain himself and his family in a state of comfort. The most practical solution at this stage is that the agriculturists should take to intensive and scientific cultivation and for this they should be provided with better implements. The people of the district make the fullest use of the means at their disposal in preparing the fields. Better results can be obtained by a more liberal use of manure and the conservation of cowdung and organic wastes. In our district the cowdung that ought to go to the fields is being used as fuel while in Japan and China every care is taken to take night-soil and urine to the fields. There is no reason apart from prejudice why the methods of utilizing night-soil adopted by the Chinese and Japanese should not be followed in our district.

The yield of the land may be increased as the result of better rotation of crops. The advantages of scientific rotation are however not unknown. Cereals alternate with leguminous staples and a heavy *kharif* crop is only followed by a light crop in the spring. This may be repeated for two years but in the third the land is left fallow during the summer and is then thoroughly prepared for wheat in the autumn or cane in the ensuing season.

The introduction of better and heavy crops should also be encouraged. A valuable crop is pea which constitutes one of the principal *rabi* products of the district. The area was 25 000 acres in 1841 and 33 000 acres in 1886. There are three or four distinct varieties the best though the most delicate being those with a white flower. The latest figures of area of cultivation are not shown separately.

Maize is a very valuable crop of the district and its importance has been increasing. This is evident from the following table —

Year	Average.
1841	4,175
1886	8,711
1889	57 000
1906	88,645
1916	96,992
1927	80,206

The table shows that the area has increased twenty times in the last 50 years. The phenomenal advance is due to several causes. The crop is one of the earliest to attain maturity and consequently is little affected by a premature cessation of the monsoon. It provides the cultivator and his family with sufficient food to last them from September till December when rice is harvested.

One of the unfortunate features of the agricultural history of the district is the decline in the area under sugarcane. It is evident from the following table :—

Year	Average
1841	81,436
1886	59,602
1906	49,292
1916	37,472
1927	49,532

The decline which has greatly affected the trade of the district is apparently due to the competition of beet and foreign cane sugar, the superior methods of manufacture in other parts of India and the spreading custom of double-cropping, the cultivators preferring to grow maize or rice and then to sow a *rabi* crop on the same field thus obviating the necessity of long fallows and careful preparation demanded by cane. Another cause of the diminution is the high cost of cultivation.

Jaunpur is famous for its melons. A large quantity of this crop is exported every year to Calcutta, Patna, Cawnpore and other cities. The three best varieties are known as Sarda, Janali and Khamhwa, and the produce of an acre sometimes brings as much as Rs 150. This is a very valuable and heavy yielding crop of the district.

Our district is also renowned for the production of radishes. One radish sometimes weighs 20 to 25 seers. This crop also brings a considerable sum of money. As far as possible the cultivation of sugarcane, wheat, radishes, potatoes, melons and other garden-crops should be encouraged.

The chief cause of agricultural inefficiency is the smallness of holdings. In our district the average size of holding is only 3.5 acres —

Districts.	Average size of tenant's holding
	Acres.
Jaunpur	3.5
Muzaffarnagar	11.5
Jalaun	1.4
Bijnor	9.1
Allahabad	8.7

The holdings are not only very small but are very widely scattered. Hence they hardly provide a decent living for the cultivator and his family. A great deal can be done if the Government take up this question seriously. They can introduce legislation to check further subdivision and also chalk out some plan for consolidation of holdings. Calvert's scheme of consolidation is doing wonders in the Punjab and the same can be done in our provinces. The Baroda State has also passed a permissive Act for the consolidation of agricultural lands in December 1920. The Government of Bombay has also recently introduced legislation in the local Council in order to promote the consolidation of holdings.

Agriculture depends mostly on wells in Jaunpur. The number of wells in the district is remarkably large. The latest figures for the year 1927-28 give a total of 35,299 masonry and 11,302 non-masonry wells in actual use for watering the fields to say nothing of many more which are reserved for drinking or manufacturing purposes. These figures give an average of 14 acres of cultivation for each well. There are few parts of the district in which wells cannot be constructed with ease as the sub-soil is generally firm and earthen wells generally last for a considerable period especially when strengthened by coils of arhar sticks. The water level is fairly high averaging about 27 feet below the surface. The cost of construction in the case of *pakka* wells varies according to circumstance but averages about Rs. 220 while that of a *kachha* well is Rs. 7.

But an all-round agricultural improvement rests ultimately upon the improvement of the standard of living of the peasantry. Better education and improved farming go together. But a good deal remains

to be done in the direction of utilizing the less busy intervals in the agricultural time-table. The introduction of subsidiary industries in connection with agriculture, e.g., fruit growing, poultry farming, basket work, hand spinning, etc., will be an important advance. Education alone will not do. It would stimulate a better standard of living, but this cannot be achieved if the cultivator lives from hand to mouth. Jaunpur is by no means an industrial town, and the manufactures of the district are few and of little importance.

Sugar industry has declined, though it is still of considerable importance, and its recovery may fairly be anticipated. Some enthusiastic *entrepreneurs* should revive the industry and remodel it on factory lines.

A noted industry of Jaunpur is the manufacture of perfumes, which is said to have been introduced from Persia in the days of the Sharhi Kings. The principal scents are those obtained from jasmine, rose and keora or screwpine and from the roots of khaskhas grass (*Andropogon muricata*). This industry is declining these days.

The remaining industries are of little note. The most important of them is handloom weaving. In villages Teihwa and Bisheswerpur there are good many weavers who are carrying on the manufacture of cotton cloths. With the encouragement of the above industries and the introduction of new ones as a subsidiary occupation to agriculture, the poverty of the small holder can be relieved and ultimately his standard of living raised.

At present the condition of agriculture is such that it can hardly provide the cultivators with bare necessities, hence the people of the district have to emigrate to distant centres in search of their livelihood. The progress of emigration is as follows —

		Emigrants	Immigrants
1901	.. . .	158,851	71,463
1911	.	.. 159,137	74,039
1921		139,229	59,579

There is hardly one family in the district which has not got one or two of its members working in some mills of Bengal. It is Jaunpur and Sultanpur which supply grass-cutters and syces to the whole of Northern India from Peshawar right up to Calcutta. In this region as the pressure on land is very severe emigration is inevitable. There is no advantage in a large mass of agricultural labourers floating about in

their native tract and thereby depressing agricultural wages. They would be benefited by migrating to other parts of the country where they could secure employment in factories or industrial or commercial establishments. This would improve the condition of the workers and also of their kinsmen who would be following agriculture in their native villages.

Labour is not as mobile as one would wish. The wage level in the district is very low and it differs in different villages and also in different seasons of the year. It ranges from two annas to eight annas according to work. Wages fluctuate when the harvest is good or when there is a failure of crops. During the last failure of *kharif* harvest the wages in some villages were as low as six pice per day. In order to better the condition of the agricultural labourer the stream of emigration should increase in volume or else the population should exercise prudential checks. So long as the labourer lives in a state of starvation and agriculture remains crowded no lasting improvement in rural conditions can be expected.

The question of hygienic housing demands immediate attention. This problem has been lately tackled by the Public Health department and they are regularly carrying on a vigorous propaganda. With the success of Dr. Sousa's scheme a great improvement is anticipated.

It would be idle to imagine at this stage all these improvements without the supply of abundant and cheap capital. We see that the rate of interest in villages varies from 25 to 300 per cent per annum.

The reasons appear to be as follows —

- (1) The ignorance of the agriculturists
- (2) Their distance from the towns where banks are situated
- (3) The reluctance of the banks to extend small transactions to villages among an ignorant people
- (4) The want of sufficient knowledge regarding the substance or integrity of the borrower

For these reasons it has always been necessary in India that the agriculturists should have some form of cheap and facile credit. All these defects can be removed by means of co-operative credit societies if they are formed in large numbers and worked on right lines.

We should adopt as far as possible the arts of technical and mechanical efficiency in small establishments and methods of marketing as in France as well as the grafting of processes of large co-operative business.

upon the small farming economy as in Belgium Denmark and Germany More and more demonstration farms should be opened in villages to give practical lessons of scientific farming to peasantry.

As the result of the organization of agriculture and the prosperity of the agricultural industries the economic position of small holders in Germany is higher than in most agricultural countries

It is to the organization of agriculture and large co-operative business that we can look forward for both the economic and the moral regeneration of the countryside But no new organization can take roots in the soil of the country unless the peasant changes his outlook on life and improves his mental equipment At present he is apt to be a fatalist, demoralized by his struggle to extort a bare sustenance from an uneconomic holding, while he is completely ignorant of many important matters that touch his real well-being The key to the improvement of agriculture will thus be found in the psychology of the peasant himself.

APPENDIX A

Population of tahsils Jaunpur by parganas

Name of pargana.	Number of villages.	Population.			Hindus.			Muhammadians.			Others.		
		Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
1 Harrell	498	60,330	67,946	137,282	58,044	67,589	116,531	10,147	10,120	20,267	247	237	484
2 Karyadost	58	11,322	11,101	22,413	10,830	10,770	21,609	383	431	804			
3 Khasraha	24	4,097	4,053	8,150	3,951	3,911	7,865	146	142	288			
4 Bari	173	27,060	6,700	33,760	25,560	25,100	50,760	1,509	1,510	3,019			
Tappa Sarema	99	10,009	10,774	21,083	9,890	9,814	10,704	1,010	955	1,965	9	5	14
5 Zafraabad	36	4,088	4,343	8,439	2,443	2,084	7,127	641	657	1,298	2	3	4
Tahsil total	799	138,719	125,007	263,726	112,625	110,958	223,583	13,830	13,803	27,641	58	244	502

Population of tahsil Jaunpur by thanas

Name of thana.	Num- ber of vil- lages.	Population.			Hindus.			Muhammadans.			Others		
		Males.	Fe- males	Total.	Males.	Fe- males.	Total.	Males	Fe- males.	Total.	Males	Fe- males.	Total
1. Dadlapur ..	18	4,045	4,169	8,214	3,803	3,940	7,749	212	223	465	.	.	.
2. Baksha ..	235	33,684	33,483	67,167	32,013	31,775	63,788	1,071	1,708	3,379	..	.	.
3. Jala'pur ..	49	5,511	5,901	11,412	5,421	5,813	11,237	87	88	175	.	.	.
4. Jaunpur Kotwali ..	230	43,361	41,370	84,731	33,524	31,693	65,217	9,507	9,154	19,061	230	223	453
5. Kirakat ..	36	4,321	4,334	8,655	4,127	4,161	8,288	185	168	353	9	5	14
6. Machhlisahr ..	62	10,553	10,497	21,050	10,201	10,104	20,305	352	393	745	..	.	.
7. Manahu ..	23	3,630	3,614	7,244	3,511	3,499	7,010	119	115	234	.	.	.
8. Sarai Khwaja ..	142	21,014	21,639	42,253	20,022	19,976	39,989	1,573	1,656	3,229	19	16	35

Population of tahsil Kirakat by parganas

Name of pargana.	Num-ber of villages.	Population.			Hindus.			Muhammadians.			Others.		
		Males.	Females.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.
Bahadur	136	5,065	25,704	50,860	23,850	24,415	48,265	1,345	1,378	2,723			
Chandwak	135	27,591	27,612	54,803	26,363	24,023	50,386	928	1,480	2,408			
Kirakat	61	17,061	17,807	34,868	16,005	16,800	32,805	1,058	1,107	2,165			
Pisaru	149	27,710	27,446	55,156	25,733	26,459	52,192	1,874	1,887	3,761	3		3
Tahsil total	481	97,127	98,039	195,166	91,921	92,097	184,018	6,203	5,902	11,105	3		3

Population of tahsil Kirakat by thanas

Name of thana.	Num-ber of villages.	Population.			Hindus.			Muhammadians.			Others.		
		Males.	Females.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.
Chandwak	151	27,604	28,043	55,647	26,719	27,126	53,845	885	917	1,802			
Jalapur	135	25,065	25,704	50,869	23,850	24,415	48,265	1,245	1,378	2,623			
Kirakat	105	44,458	44,523	88,981	41,362	40,568	81,930	3,073	2,966	6,039	3		3

Name of pargana	Num-ber of villages	Population			Hindus			Muhammadians			Others		
		Males	Fe-males	Total	Males	Fe-males	Total	Males	Fe-males	Total	Males	Fe-males	Total
1. Barasathi	163	29,116	30,487	59,603	27,161	28,915	56,076	1,619	1,598	3,217	6	1	10
2 Gopalpur	118	17,480	18,564	35,914	16,111	17,165	33,909	1,036	999	2,035	.	..	..
3. Marrahu	436	67,843	71,029	138,872	61,066	67,156	131,222	3,771	3,872	7,616	3	1	4
4 Rampur	1	334	416	70	330	108	738	1	8	11	.	..	..
Tahsil total	718	114,773	120,396	235,169	108,301	113,911	222,215	6,163	6,117	12,910	9	5	14

Population of tahsil Marrahu by thanas

Name of thana	Num-ber of villages	Population			Hindus.			Muhammadians			Others.		
		Males	Fe-males	Total.	Males	Fe-males	Total	Males	Fe-males	Total.	Males	Fe-males	Total
1. Bamhiyaas	105	18,348	19,407	37,755	17,577	18,648	36,225	771	759	1,530		..	..
2 Machhlushahr	24	4,854	4,981	9,835	4,076	4,813	9,489	178	168	346	..	..	..
3 Rampur	199	34,671	36,937	7,008	32,697	35,055	67,752	1,974	1,882	3,856	.	.	..
4 Marrahu	392	43,321	45,166	88,487	40,288	42,085	82,373	3,024	3,076	6,100	9	5	14

Population of tahsil Machhlishahr by parganas

Name of pargana.	Num-ber of villages.	Population.			Hindus.			Muhammadians.			Others.		
		Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.
1. Garwara	321	48,834	47,923	96,756	43,873	44,001	88,704	3,011	2,098	5,909	30	23	53
2. Ghilwa	409	37,003	37,782	74,785	33,157	33,779	66,936	3,795	3,964	7,759	51	30	90
3. Mungra	108	23,841	24,214	48,055	22,438	22,809	45,267	1,383	1,406	2,788			
Tahsil total	838	107,678	108,918	217,598	99,508	101,480	200,997	8,080	8,367	16,456	81	53	143

Population of tahsil Machhlishahr by thanas

Name of thana.	Num-ber of villages.	Population.			Hindus.			Muhammadians.			Others.		
		Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.
1. Badliapur	35	5,833	5,737	11,570	5,488	5,583	11,071	245	254	499			
2. Badshapur	130	26,961	27,476	54,437	25,469	25,920	51,389	1,483	1,566	3,049			
3. Damhlyson	63	14,069	14,230	28,299	13,126	12,293	25,419	933	937	1,870			
4. Machhlishahr	127	21,510	22,044	43,553	18,618	19,025	37,645	2,850	2,960	5,830	51	30	90
5. Sejanganj	281	30,316	40,431	70,737	36,707	37,768	74,475	2,579	2,630	5,209	30	23	53

Population of tahsil Shohganj by parganas.

Name of pargana	Num-ber of villages	Population			Hindus.			Muhammadians			Others.		
		Males	Fe-males	Total.	Males	Fe-males	Total.	Males	Fe-males	Total.	Males	Fe-males	Total.
1. Chanda	70	14,104	13,873	27,977	12,961	12,856	25,817	1,143	1,017	2,160			
2. Karyat Mendha	70	7,730	7,587	15,317	7,472	7,344	14,816	258	243	501	..	..	..
3. Rari	58	14,718	14,924	29,642	14,008	14,147	28,155	710	777	1,487			..
4. Ungli	500	91,631	90,861	184,492	77,309	75,891	153,200	14,293	14,950	29,243	29	20	49
Tahsil total	707	128,183	127,245	255,428	111,750	110,238	221,988	16,404	16,997	33,391	29	20	49

Population of tahsil Shahrang by thanas.

Name of thana.	Num-ber of villages	Population			Hindus			Muhammadians.			Others		
		Males	Fe-males	Total	Males.	Fe-males	Total.	Males	Fe-males.	Total.	Males	Fe-males.	Total.
1. Badlapur	207	36,552	63,384	72,936	34,441	34,347	68,788	2,211	2,037	4,149	.		.
2. Sarain Khwaja	120	20,470	20,962	41,032	10,191	16,301	32,492	4,261	4,252	8,516	15	9	24
3. Serpataha	229	40,453	39,222	79,675	36,357	34,073	71,330	4,091	4,245	8,336	5	4	9
4. Shahganj	151	30,708	31,077	61,785	24,761	24,617	49,378	5,938	6,453	12,391	9	7	16

APPENDIX B

Irrigation statement by parganas—The sub-joined statement exhibits all the available irrigation figures —

Taluk.	Pargana.	Total area.	Total culti- vated area.	Number of wells.		Total	Area irrigated by—		Total irrigated area.	Percentage of well irrigated to total irrigated area.
				Patten.	Kockcha.		Wells	Other sources.		
Jaunpur	Haroli	86,315	59,323	4,890	1,978	6,868	7,005	230	8,195	17
	Barf	43,901	33,034	1,564	1,870	3,433	4,167	81	4,248	98
	Bareman	10,207	11,991	574	246	820	1,574	8	1,602	98
	Zafarabad	4,914	3,695	335	193	528	504		504	100
	Karlat Doot	18,831	14,175	858	358	1,216	1,673		1,673	100
	Khaspacha	7,030	5,128	322	103	425	646		646	100
Total of tahsil Jaunpur		180,168	127,346	8,543	4,769	13,300	16,539	330	16,868	
Mirajhu	Mirajhu	123,074	82,543	5,531	1,155	6,686	42,708	708	43,396	99
	Barnathi	52,455	34,548	2,441	105	2,546	17,906	119	18,023	99
	Gopalpur	28,927	20,179	1,349	98	1,447	10,731	325	11,056	97
	Total of tahsil Mirajhu.	204,456	137,270	9,321	1,358	10,679	71,435	945	72,377	

Machhlisahr.	Garwara ..	98,033	55,001	3,307	524	3,841	4,400	71	4,561	98
	Ghuswa ..	75,239	40,293	2,925	192	3,117	4,900	101	5,001	98
	Mungra ..	50,929	32,322	2,182	70	2,252	2,410	149	2,559	94
	Total of tahsil Machhlisahr	220,201	134,516	8,414	796	9,210	11,800	321	12,121	..
Shahganj ..	Ungli ..	173,720	107,118	4,206	1,409	5,615	6,802	2,410	9,212	71
	Kariyat Nondha ..	12,498	9,409	363	491	854	712	1	713	100
	Chanda ..	21,525	15,090	824	502	1,326	1,164	2	1,166	100
	Rani.. ..	23,485	17,373	1,109	764	1,873	1,937	..	1,937	100
Kerakat ..	Total of tahsil Shahganj.	231,228	148,990	6,502	3,166	9,668	10,615	2,413	13,058	.
	Bilsi.. ..	40,402	30,391	1,896	724	2,620	4,205	3	4,208	100
	Pisara ..	29,873	18,214	80	527	1,418	1,949	7	1,956	100
	Chandwak ..	44,706	30,591	1,519	855	2,374	3,414	2	3,416	100
Kerakat ..	Daryapur ..	16,036	10,898	561	642	1,203	1,521	.	1,521	100
	Guzara ..	24,194	17,614	868	329	1,297	1,912	..	1,912	100
	Total of tahsil Kerakat.	155,811	107,708	5,835	3,077	8,912	13,001	12	13,013	.
	District total ..	991,864	655,730	38,615	13,154	51,769	123,380	4,057	127,437	..